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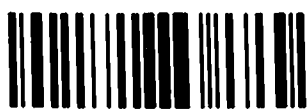
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Impatiens
Noli-me-tangere.

Dec. 1. 1801. Delin. by J. Sowerby. London.

IMPATIENS *Noli me tangere.**Yellow Balsam.**PENTANDRIA Monogynia.*

GEN. CHAR. *Cor.* of 5 petals, irregular, with an hood-shaped nectary. *Antheræ* slightly connected. *Capsule* superior, of 5 elastic valves. *Cal.* of 2 leaves.

SPEC. CHAR. Flower-stalks solitary, bearing many flowers. Leaves ovate. Joints of the stem swelling.

SYN. *Impatiens Noli me tangere.* *Linn. Sp. Pl.* 1329. *Sm. Fl. Brit.* 244. *Huds.* 380. *With.* 263. *Hull.* 192.

Balsamine lutea, sive Noli me tangere. Raii Syn. 316.

RAY mentions this elegant plant as a native of several places in Westmoreland, Lancashire, Yorkshire, and Wales. We have seen it plentifully about the north end of Winandermere, in watery spots. It will succeed well in shady gardens, scattering its seeds spontaneously with more success than if sown by the hand. We have been obliged now to have recourse to a garden specimen, (differing in no respect from wild ones,) the herb being so delicate, and from the quick evaporation of its juices liable to wither so very soon, that it could not have been obtained fresh from any great distance.

The root is annual, branched fleshy, spreading horizontally. Stem solitary, erect, about 2 feet high, branched, leafy, round, succulent, very smooth and polished. Leaves alternate, on footstalks, ovate, obtuse, serrated, smooth, veiny. Villars says they become flaccid and as if withered, during the night, but we have found them otherwise in a garden. Flower-stalks axillary and branched, bearing 4 or 5 large handsome peruluous flowers, yellow spotted internally with red, consisting of a horn-shaped nectary, 1 upper petal, and 2 large lateral lobed ones, accompanied at the base by 2 small entire petals united to them. *Antheræ* united at their bases rather than their summits. The elastic valves of the capsule, when ripe, curl up, and fly asunder on the slightest touch, whence the common name *Touch me not*.



Scilla maritima L.

LYCOPSIS arvensis.

Small Bugloss.

PENTANDRIA Monogynia.

GEN. CHAR. Cor. with a curved tube, the mouth closed with convex scales.

SPEC. CHAR. Leaves lanceolate, bristly. Calyx white in flower erect.

SYN. *Lycopsis arvensis*. Linn. Sp. Pl. 199. Sm. Fl. Brit. 221. Huds. 82. With. 231. Hull. 47. Relh. 79. Sibth. 71. Abbot. 43. Curt. Lond. fasc. 5. t. 17.

Buglossa sylvestris minor. Raii Syn. 227.

COMMON every where in fields and on dry hedge banks during the early part of summer, flowering chiefly in June, after which the herb is dried up, scatters its seeds, and the small annual root withers away.

The stem is upright, straight, more or less branched, angular, leafy. Leaves alternate, lanceolate; heart-shaped, and clasping the stem at their base, (except the radical ones, which taper into a footstalk,) waved in their margin. Flowers in terminal revolute spikes soon lengthened out into leafy racemi. Calyx of 5 lanceolate segments, erect both in flower and fruit. Tube of the corolla white, cylindrical, remarkably, and seemingly artificially, bent, containing the 5 short stamina at the curved part. Its mouth is completely closed by 5 convex white downy valves, which elegantly contrast with the bright blue of the limb of the corolla, and entirely conceal all the organs of fructification. Four vertical angular rugged naked seeds are at length contained in the enlarged calyx. Every part of the herb, except the corolla, is clothed with pungent bristles. Its juices are mucilaginous, like those of Borage, to which it is nearly akin, however widely different in the corolla and stamina; see vol. 1. t. 36.



HERACLEUM Sphondylium.

*Common Cow Parsnep.**PENTANDRIA Digynia.*

GEN. CHAR. *Fruit* elliptical, notched, compressed, striated, dilated in the margin. *Flowers* radiant. *Petals* notched, with an inflexed point. *General Involucrum* deciduous.

SPEC. CHAR. Leaves pinnate : leaflets pinnatifid, cut and serrated.

SYN. *Heracleum Sphondylium*. *Linn. Sp. Pl.* 358.
Sm. Fl. Brit. 307. *Huds.* 117. *With.* 295.
Hull. 58. *Relh.* 114. *Sibth.* 95. *Abbot.* 61.
Sphondylium. *Raii Syn.* 205.

EVERY one knows the Cow Parsnep, the largest and most conspicuous of our common umbelliferous plants, whose tall stems and great white or reddish umbels are to be seen throughout the month of July by road-sides, in thickets, groves, borders of fields, and even meadows.

The root is biennial, tap-shaped. Stem erect, branched, leafy, stout, hollow, furrowed and rough, mostly 4 feet high. Leaves large, ternate or pinnate, variously pinnatifid, cut and serrated, downy beneath ; their common stalk furnished with one large inflated ribbed stipula. Umbels flattish, of many rays. General and partial involucre of several lanceolate sharp leaves, the former in particular soon falling off. Petals unequal, inversely heart-shaped with an inflexed tooth between the lobes, a circumstance common to many flowers of this natural order, but in none more conspicuous than in the outermost petals of the present plant. Fruit elliptical, broad and flat, smooth, with 3 ribs on each side.

We are authorized to say that the *H. angustifolium* of all British writers is merely a narrow-leaved variety of this, sometimes growing from the same root, as Mr. Woodward first remarked. It has been suspected that Professor Jacquin has made too many species in this genus ; and it is necessary here to add that even the *H. angustifolium* of *Fl. Brit.* proves on examination to be different from the Linnæan plant to which it was, on the faith of two most excellent botanists, referred, and to which the description in *Fl. Brit.* belongs.

946



ÆGOPODIUM Podagraria.

*Gout-weed.**PENTANDRIA Digynia.*

GEN. CHAR. *General or partial Invol.* none. *Fruit* ovate-oblong, ribbed. *Petals* heart-shaped, with an inflexed point, unequal.

SPEC. CHAR.

SYN. *Ægopodium Podagraria.* *Linn. Sp. Pl.* 379.
Sm. Fl. Brit. 334. *Huds.* 129. *With.* 314.
Hull. 64. *Relh.* 126. *Sibth.* 103. *Abbot.* 69.
Angelica sylvestris minor, seu erratica. *Raii Syn.*
 208.

A VERY general weed in shady waste places, very troublesome in gardens whose soil is rich or moist, as the creeping roots spread to a wide extent, and are difficult to extirpate. The flowers appear plentifully in May and June, but, except the roots are confined, produce little or no seed.

The stems are about a foot high, erect, not much branched, leafy, furrowed. Radical leaves on long stalks, twice ternate; the rest simply ternate, opposite, and on shorter dilated stalks: all the leaflets are large, pretty uniform, ovate, acute, doubly or unequally serrated, smooth. Umbels terminal, erect, solitary, of many rays, but without any general or partial involucre. Flowers pure white. Petals a little unequal in size, broad, heart-shaped from their incurved points. Fruit elliptical, rather compressed, smooth, with 3 prominent ribs to each seed.

The *Ægopodium* has an acrid pungent root, supposed to agree in qualities with the more active *Imperatoria* or Masterwort, and formerly used as a cataplasm in the gout, whence the English name. It has also been called Herb-Gerard, not, as it seems, from our old herbalist, for according to Dodonæus that name is of Flemish origin; and though our countryman repeats it often in his herbal, with apparent complacency, he does not appropriate it to himself.

941.

575.



Polygonum convolvulus.

POLYGONUM Convolvulus.

Climbing Buck-wheat.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 segments, permanent.
Seed solitary, superior, angular, invested with the
 calyx. *Stam.* and *Pist.* uncertain in number.

SPEC. CHAR. Leaves heart-arrowshaped. Stem twin-
 ing, angular. Segments of the calyx bluntly
 keeled.

SYN. Polygonum Convolvulus. *Linn. Sp. Pl.* 522.
Sm. Fl. Brit. 430. *Huds.* 171. *With.* 385.
Hull. 86. *Relh.* 162. *Sibth.* 131. *Abbot.* 90.
Curt. Lond. fasc. 4. t. 29.

Fegopyrum scandens sylvestre. Raii Syn. 144.

THIS herb, commonly known by the name of the Black Bindweed, perhaps from the dark colour of its seeds, is but too frequent among corn, as well as in gardens, hedges, osier-grounds, &c. flowering and seeding abundantly from June to September.

Root annual, small, and fibrous. Stem twisting round every thing in its way, and thus climbing to the height of 5 or 6 feet, angular, leafy, branching, often roughish; when not supported it is procumbent and short, branching from the base. Leaves alternate, on footstalks, arrow-shaped approaching to the form of a heart, entire, waved, smooth, light-green. Flowers in terminal interrupted spikes, each on a little drooping stalk, whitish with more or less of a reddish tinge, the 3 outer segments furnished with a broad flat (not dilated) keel. Stamina generally 8, and stigmas 3; but sometimes may be found only 6 stamina and a pair of stigmas. Seed triangular, with concave sides.

Small birds are fond of the seeds, which, no doubt, possess the same nutritive qualities as those of *P. Fagopyrum* or Common Buck-wheat, but are inferior in size.



Fig. 1. *Brassica* *sp.* (The plant is shown in the original text.)

ERYSIMUM cheiranthoides.

Treacle Hedge-mustard.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* straight, columnar, exactly square.

Cal. closed. *Stigma* blunt.

SPEC. CHAR. Leaves lanceolate, slightly toothed.

*Pod*serect. Flower-stalks when in fruit spreading.

SYN. *Erysimum cheiranthoides*. *Linn. Sp. Pl.* 923.

Sm. Fl. Brit. 708. *Huds.* 287. *With.* 585.

Hull. 146. *Relh.* 251. *Sibth.* 202.

Cheiranthus erysimoides. *Huds.* 287.

Myagro affinis planta, siliquis longis. Raii Syn. 298.

THE plant here delineated is to be found in osier grounds in various parts of England, nor is it of so rare occurrence as we at one time supposed, being not uncommon in turnip-fields in Norfolk and Suffolk, in which counties it sometimes occurs as a weed in gardens. Our wild specimen came from Norwich. It is an annual, flowering about July.

The stem is erect, varying greatly in size, as well as number of branches, according to the richness of the soil, straight, leafy, angular, covered with small close-pressed bristles. Leaves lanceolate, either quite entire, or furnished with a few distant teeth, roughish, with small depressed, whitish, often forked or three-cleft, bristles, which are also found on the stalks and pods. Flowers numerous, small, yellow, with a yellowish erect calyx. The partial flower-stalks become horizontal as the fruit increases, but the pods themselves stand erect, and are square, tipped with a minute sessile stigma.

Mr. Hudson first adopted this plant from Ray, and was led by Bauhin's synonym to refer it, rightly, to the *E. cheiranthoides* of Linnæus. When he himself gathered what we know, by authentic specimens, to be the same, he erroneously took it for *Cheiranthus erysimoides*, and thus in his 2d edition has one plant under two names.—The English name arose from its entering into that nonsensical hodge-podge called *Theriaca* or Venice Treacle.

943

987



Fumaria capreolata.

Fr. - in Pallasii'sy, Fl. Rossicae, fasc. 1.

FUMARIA capreolata.

Ramping Fumitory.

DIADELPHIA Hexandria.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Spike lax. Pods single-seeded, globose. Stem climbing by means of the twisted foot-stalks. Leaflets wedge-shaped, lobed.

SYN. *Fumaria capreolata*. *Linn. Sp. Pl.* 985. *Sm. Fl. Brit.* 751. *With.* 621. *t.* 30. *Hull.* 158. *Sibth.* 217. *Curt. Lond. fasc.* 6. *t.* 47. *Dicks. H. Sicc. fasc.* 9. 9.

F. officinalis β . *Huds.* 309. *Relh.* 267.

F. major scandens, flore pallidiore. *Raii Syn.* 204.

MR. CURTIS has, in our opinion, sufficiently proved this to be a distinct species, and not a variety of the Common Fumitory. The much greater size of the whole herb ; its less glaucous hue ; the twisting foot-stalks, which, like tendrils, support it upon other plants, and enable it to rise to 3 or 4 feet in height ; the paler, less gaping flower, with a more projecting spur ; the larger and more elegant calyx-leaves, all serve to distinguish it ; nor does the seed-vessel, so important in the specific distinctions of *Fumariæ*, entirely fail us in this instance, for the pods are here more globose than in the *officinalis*, and by no means obcordate, though marked with a slight depression on each side of the insertion of the style.

F. capreolata is annual, flowering from June to September. It occurs here and there in fields and garden grounds, as about Battersea ; but Mr. Sowerby and Mr. Curtis have remarked it to be more abundant, and seemingly at home, in Cornwall and Devonshire. Mr. W. Borrer has communicated it to us from Sussex.

The delineator of Dr. Withering's plate has erroneously represented tendrils distinct from the footstalks.

944.
1035.



TRIFOLIUM arvense.

*Hare's-foot Trefoil.**DIADELPHIA Decandria.*

GEN. CHAR. *Flowers* more or less capitate. *Pod* scarcely longer than the calyx, never bursting, but falling off entire.

SPEC. CHAR. Heads very hairy, cylindrical. Teeth of the calyx bristle-shaped, longer than the corolla. Leaflets narrow-obovate.

SYN. *Trifolium arvense.* Linn. *Sp. Pl.* 1083. Sm. *Fl. Brit.* 787. Huds. 326. With. 649. Hull. 163. Relh. 281. Sibth. 229. Abbot. 162. Curt. *Lond. fasc.* 6. t. 50. Dicks. *H. Sicc. fasc.* 3. 8.

T. *arvense humile spicatum, seu Lagopus.* Raii. *Syn.* 330.

COMMON in sandy barren fields, flowering in July and August.

The root is small and annual. Stem mostly erect, very much branched, somewhat zigzag, round, hairy. Leaves on foot-stalks, the leaflets nearly sessile, linear-obovate, hairy. Stipulæ lanceolate, often red, tapering into a bristle-like point. Heads, or rather spikes, cylindrical, blunt, various in length, dense, consisting of numerous pale-red-dish flowers, whose long, tapering, equal, prominent and very hairy calyx-teeth give the whole spike a downy appearance. Corolla much shorter than these teeth, and almost concealed by them. Pod very small. In maritime situations the herbage sometimes becomes quite silky, see *Raii Syn. t. 14. f. 2.*

Far from being worthy of cultivation for fodder, like most of its genus, this Trefoil appears to be altogether a weed to the farmer, nor are we acquainted with any animals that prefer it as food.

*Trifolium procumbens.**Herb. t. 1041. Published by J. G. Sowerby, London.*

TRIFOLIUM procumbens.

Hop Trefoil.

DIADELPHIA Decandria.

GEN. CHAR. *Flowers* more or less capitate. *Pod* scarcely longer than the calyx, never bursting, but falling off entire.

SPEC. CHAR. Heads oval, imbricated. Standard deflexed, permanent, furrowed. Stems procumbent. Leaflets obovate.

SYN. *Trifolium procumbens.* Linn. *Sp. Pl.* 1088. *Sm. Fl. Brit.* 792. *With.* 654. *Hull.* 164. *Sibth.* 230. *Abbot.* 163.

T. agrarium. *Huds.* 328. *Relh.* 283. *Curt. Lond. fasc. 3. t. 45.* *Mart. Rust. t. 121.*

T. pratense luteum, capitulo Lupuli, vel agrarium. *Raii Syn.* 330.

IN rather dry gravelly pastures, and the borders of fields, not uncommon, acceptable to cattle, flowering in June and July, and rendered conspicuous in a more advanced state by its dry permanent hop-like heads.

Root small, but strong, annual. Stems spreading widely, and naturally procumbent, though sometimes supported by other plants, and indeed generally ascending at their extremities; they are a little branched, leafy, and hairy, often purplish. Leaflets obovate, emarginate, toothed, smooth. Stipulæ half-ovate, acute, entire, strongly ribbed, often ciliated. Heads on stalks, a little spicate, frequently reaching beyond the leaves, elliptical, obtuse, dense, many-flowered. Flower-stalks most hairy upwards. Calyx-teeth unequal, taper, hairy. Corolla lemon-coloured, permanent, at length brown and membranous, enfolding the small, elliptic, pointed pod, and distinguished by its broad, furrowed, or plaited, standard.

The real Linnæan *T. agrarium* is an exotic plant, truly erect, much larger than this, and may be seen in Dickson's *Dried Plants*, n. 80. The *procumbens* of Hudson I am now convinced is improperly confounded with *filiforme* in *Fl. Brit.* and shall take a future opportunity of explaining them.

946
1144.



Gnaphalium
Germanicum.

Printed and Published by J. Sturges, London

GNAPHALIUM germanicum.

*Common Cudweed.**SYNGENESIA Polygamia-superflua.*

GEN. CHAR. *Recept.* naked. *Down* rough or feathery. *Cal.* imbricated ; with coloured membranous scales. *Florets* of the radius awl-shaped. Some *florets* of the disk occasionally abortive.

SPEC. CHAR. Stem erect, proliferous. Leaves lanceolate. Heads globose, many-flowered, lateral as well as terminal.

SYN. *Gnaphalium germanicum.* *Sm. Fl. Brit.* 874. *Huds.* 362. *With.* 716. *Hull.* 184.

G. minus, seu *Herba impia.* *Raii Syn.* 180.

Filago germanica. *Linn. Sp. Pl.* 1311. *Relh.* 327. *Sibth.* 262. *Abbot.* 189.

DRY gravelly or sandy fields produce this plant in abundance. Its first flowers appear in June or July, but its repeatedly branching stem bears a succession of fresh ones to the end of autumn.

Root annual, small. Stems at first a span high, erect and simple, leafy and woolly, terminated by a solitary round sessile head of numerous flowers : but two or more branches soon spring from under this head, point upward, flower, and branch in a similar manner, so that the offspring as it were exalting itself above the parent has given occasion to the ingenious name of *Herba impia*, or Wicked Cudweed. Leaves numerous, alternate, erect, lanceolate, waved, woolly on both sides. Flowers spreading in every direction, cylindrical. Calyx-leaves brownish, shining, tapering, smooth, with a green rib. Florets pale yellow ; the hermaphrodite only 2 or 3 ; female several, very slender ; both kinds producing perfect seed crowned by rough down.

The name Cudweed has arisen from a supposed power in this herb to provoke rumination in cattle ; and its dry woolly substance, when taken into the throat, is not unlikely to have such an effect.

947
1314.



Ceratophyllum demersum.

Noni Bot. Publisher by J. Smith, London.

CERATOPHYLLUM demersum.

*Common Hornwort.**MONOECIA Polyandria.*

GEN. CHAR. Male. *Cal.* in many divisions. *Cor.* none. *Stam.* 16 to 20.

Female. *Cal.* in many divisions. *Cor.* none. *Stigma* nearly sessile. *Seed* solitary, coated.

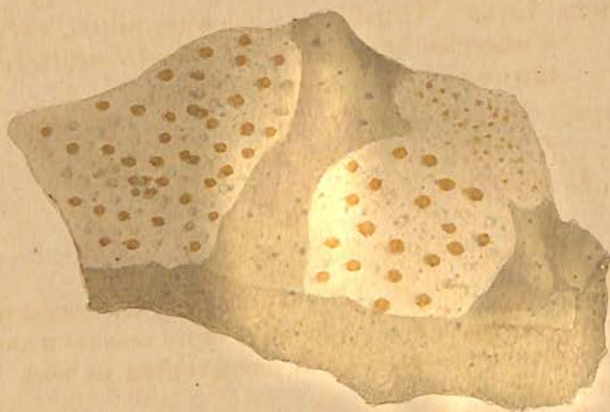
SPEC. CHAR. Fruit armed with three spines.

SYN. *Ceratophyllum demersum.* *Linn. Sp. Pl.* 1409. *Huds.* 419, *α.* *With.* 440. *Hull.* 211. *Relh.* 361. *Sibth.* 168.

Hydroceratophyllum folio aspero, quatuor cornibus armato. *Vaill. Mém. de l'Acad. des Sciences (German edition),* 299. t. 15. f. 1. *Raii Syn.* 135.

THE diligence of our obliging correspondents the Rev. Mr. Holme and Mr. Pitchford, has this season supplied us with the fructification of *Ceratophyllum demersum*, which enables us now to complete the history of that genus : see v. 10. t. 679.

This species is very common in stagnant waters, ditches and fish-ponds, flowering in September. The root is perennial. Herb floating under water, and agreeing in habit with *C. submersum*, except that the leaves appear to be more distinctly toothed, or rougher, as Vaillant observes, and he mentions their segments as less numerous, which we can scarcely confirm. The flowers are sessile, whorled, each placed in the bosom of a leaf. The true specific character resides in the fruit, which is armed with one long terminal spine, formed of the lengthened style, and two, generally shorter, divaricating lateral ones. To this may be added that we have in every instance found the segments of the calyx toothed at their summits, whereas they are entire in *C. submersum*. This if constant is an excellent distinction. It cannot be denied that the specific names of these plants do not serve to distinguish them, and that *armatum* and *muticum* would be better.



Lecidea rupestris.

LICHEN calvus.

Bald Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust grayish-white, pitted, very hard. Tubercles hemispherical, smooth, scattered, of a tawny red, without any border.

SYN. Lichen calvus. *Dicks. Crypt. fasc. 2. 18. t. 6. f. 4. Achar. Prod. 72. With. v. 4. 14. Hull. 288. L. rupestris. Achar. Prod. 43 ?*

DISCOVERED by Mr. Dickson on calcareous rocks in the highlands of Scotland, nor have we seen it on any other kind of stone. Mr. Griffith has favoured us with Welch specimens.

The crust is hard, and inseparable from the stone, conforming to all its inequalities, but not otherwise rugged, except that it abounds with little round depressions, left by the tubercles when they fall off. Its colour is a pale grayish or brownish white; its surface smooth, not at all mealy or granulated. Sometimes it is overrun by *L. niger* or some other minute black species. The tubercles are quite sessile, hemispherical, hard, of a dull orange-colour more or less deep, quite destitute of any border, their surface generally quite smooth even and rather polished, but sometimes a little rugged or uneven. Their internal part is a white core half immersed in the crust.

Mr. Turner, on the authority of Hoffmann's synonym, (*Verrucaria rufescens*, *Pl. Lich. t. 17. f. 1.*) has suggested the probability that the *L. rupestris* of Acharius, Scopoli, &c. is the same with this. If so, we cannot but prefer *calvus* as the most expressive name.



Lecanora atra?

lichen ater.
Black-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust rugged, granulated, white. Shields flattish, coal-black, with an elevated, white, at length zigzag and notched, border.

SYN. Lichen ater. *Huds.* 530. *Lightf.* 813. *With.* v. 4. 18. *Hull.* 289. *Relh.* 426. *Sibth.* 323. *Abbot.* 261.

L. tephromelas. *Achar. Prod.* 67.

Lichenoides crustaceum et leprosum, scutellis nigricantibus majoribus et minoribus. *Dill. Musc.* 133. t. 18. f. 15.

THIS Lichen is very common on walls, and even on rocks. It seems to flourish most abundantly on brick buildings in rather exposed situations.

The crust spreads circularly, and is moderately thick, granulated and rugged, sometimes very white, but often a little brownish or grayish, not at all mealy. When dry it is very friable. The shields are extremely numerous, and often crowded together, sessile, various in size. Their disk nearly flat, or rather concave than convex, of a perfect charcoal black in every stage of their growth, by which it is distinguished from all varieties of *L. subfuscus*, a species we shall take a future opportunity of illustrating. The margin of the shields is conspicuous by its elevation and whiteness, generally speaking, for in some instances it is found tinged with lead-colour, and then the plant becomes *L. cinerascens* of Withering, but has nothing to do with t. 4. f. 3. of Hoffmann's *Enumeratio*. By age this margin grows zigzag and variously notched.

Dillenius thought our *scruposus*, v. 4. t. 266. a variety of this.



Cladium
Mariscus.

Hand-drawn by J. Sowerby

SCHÆNUS *Mariscus*.*Prickly Bog-rush.**TRIANDRIA Monogynia.*

GEN. CHAR. *Glumes* chaffy, clustered; the outer ones barren. *Cor.* none. *Seed* 1, roundish, among the *glumes*.

SPEC. CHAR. Stem round. Leaves prickly at the margin and keel.

SYN. *Schœnus Mariscus*. *Linn. Sp. Pl.* 62. *Sm. Fl. Brit.* 43. *Huds.* 14. *With.* 79. *Hull.* 12. *Relh.* 16.

Cyperus longus inodorus sylvestris. *Raii Syn.* 426.

A NATIVE of boggy moors in several parts of England, but not common. It is said to be peculiarly abundant about Cambridge, from whence our specimens were supplied by the Rev. Mr. Holme. Mr. Wigg gathered it this autumn near Yarmouth. It is perennial, and flowers throughout July and August.

The roots are long, creeping, and run deep into the ground. Stem erect, 3 or 4 feet high, straight, paniced, leafy, round and quite smooth. Leaves numerous, long, tapering to a sharp triangular point; their edges and keel very neatly and acutely serrated; the base sheathing, cylindrical, and entire. The flowers are brown, cylindrical or somewhat ovate, clustered; the clusters collected into *corymbi*, furnished with numerous sheathing bristle-pointed bractæ. Glumes ovate, keeled, smooth; the outermost shortest and barren. Mr. Sowerby has observed the stamina to be but two, and the stigma to consist occasionally of 2, 3 or 4 divisions. The fruit has none of those bristles or hairs at its base observable in *S. compressus*, *albus*, and some others; neither does it resemble them in structure, being a real ovate *drupa*, externally quite smooth and polished. The seed is elliptical, pointed, marked with 3 angles, and inclosed in a mealy pulp. This circumstance might probably authorize the establishment of a new genus, when Haller's name of *Mariscus* would properly come into use; but several foreign plants allied to this require previously to be studied.



AGROSTIS *Spica venti.**Silky Bent-grass.**TRIANDRIA Digynia.*

GEN. CHAR. *Cal.* of 2 acute valves, single-flowered
Cor. of 2 unequal valves, larger than the calyx.
Stigmas feathery.

SPEC. CHAR. Exterior petal furnished with a straight stiff and very long awn, inserted below the summit. Panicle spreading.

SYN. *Agrostis Spica venti.* *Linn. Sp. Pl.* 91. *Sm. Fl. Brit.* 77. *Huds.* 30. *With.* 126. *Hull.* 18. *Relh.* 26. *Abbot.* 14.

Gramen miliaceum majus, glumis aristatis, spadiceis et pallidis. *Raii Syn.* 405.

GATHERED by Mr. Groult in July last between Kennington and Camberwell. It is by no means a common grass, but is chiefly to be looked for in sandy corn-fields that are occasionally inundated, where its ample shining panicles, elegantly waving in the wind, betray it at a considerable distance.

Root annual, formed of numerous crooked fibres, peculiarly thick at their origin. Stems several, 2 or 3 feet high, leafy, smooth, furnished with 1 or 2 joints near their base. Leaves often a little downy above, rough to the touch beneath. Stipula jagged. Panicle varying from 3 inches to a foot in length, the numerous branches clustered in several alternate series one above the other, their subdivisions angular and rough. Flowers extremely numerous, small. Glumes greenish-white or purplish. Those of the calyx acute, rough on the keel, unequal in length, though less so than in some grasses. Outer petal notched, rough on the keel and margin, bearing on its back, below the summit, a very long straight rough aw. which, as far as we know, is never wanting. The inner petal is smooth, tender, pointed and awnless, but has a few fine hairs at its base.



AVENA flavescens.

Yellow Oat-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing several florets. Outer valve of the *corolla* bearing a twisted awn on its back.

SPEC. CHAR. Panicle much branched, loose. Calyx unequal, containing about three florets. Receptacle hairy. Leaves flat, a little downy.

SYN. *Avena flavescens.* *Linñ. Sp. Pl.* 118. *Sm. Fl. Brit.* 142. *Huds.* 53. *With.* 165. *Hull.* 26. *Relh.* 51. *Sibth.* 49. *Abbot.* 25. *Curt. Lond. fasc.* 3. t. 5.

Gramen avenaceum pratense elatius, paniculâ flavescente, locustis parvis. *Raii Syn.* 407.

COMMON in chalky or limestone countries; sometimes on dry sandy soils, where the shining yellow of the panicle is seen in its greatest perfection. It is a perennial grass, flowering in July.

Root creeping, especially when luxuriant. Stems erect, curved at the bottom, slender, about a foot high, leafy, with about 3 joints. Leaves narrow, taper-pointed, more or less downy, especially their sheaths; and the joints of the stem are often furnished underneath with a circle of deflexed hairs. Stipula bristly, short. Panicle spreading, many-flowered, sometimes a little drooping; its branches capillary, rough, zigzag; its ultimate subdivisions alternate. Spikelets small, spreading, shining with yellow and a pale tinge of red, composed of 2 or 3, rarely 4, florets. Calyx-valves acute, with a rough keel; one of them twice as large as the other, and having a pair of lateral nerves. Outer petal much like the larger valve of the calyx, but bearing below its summit a longish rough awn, twisted when dry. Common receptacle of the florets bristly.

We can confirm Mr. Curtis's opinion of the value of this grass, as being highly agreeable to cattle, and forming a great share of the best upland pasturage in open dry countries.



Lobelia urens.

LOBELIA urens.

*Acrid Lobelia.**PENTANDRIA Monogynia.*

GEN. CHAR. Cor. irregular, slit longitudinally on its upper side. *Stigma* capitate. *Antheræ* united into a tube. *Caps.* inferior, with 2 or 3 cells.

SPEC. CHAR. Stem upright. Lower leaves obovate; upper ones lanceolate; all toothed. Flowers racemose, downy.

SYN. *Lobelia urens.* *Linn. Sp. Pl.* 1321. *Sm. Fl. Brit.* 243. *Huds.* 378. *With.* 246. *Hull.* 191. *Curt. Lond. fasc.* 6. *t.* 63. *Dicks. II. Sicc. fasc.* 16. 9.

THIS rare plant was scarcely known to the generality of English botanists, except by Mr. Hudson's report, till Mr. Curtis received it from Lord Webb Seymour, and figured it extremely well in his Flora. We have been, like him, obliged to delineate a garden specimen, taken from the choice collection of James Vere, Esq., Knightsbridge. It has never been found (in England) out of Devonshire; but in addition to the two spots already on record we can add Ottery St. Mary, near which town it was observed in the autumn of 1800 by Miss Burgess. It is perennial, growing on heaths among small shrubs, and flowering about September.

Root fibrous, increasing by offsets. Stem about a foot high, branched, leafy, angular, roughish, but not hairy. Leaves all irregularly toothed rather than serrate, alternate, the lowest obovate. Flowers in very long, terminal, simple, bracteated spikes or clusters. Calyx of 5 linear rough spreading leaves, crowning the furrowed roughish germen. Corolla of a full purplish blue, rough with minute points. Stamina protruding through the fissure of the corolla, their filament in the upper part, as well as the antheræ, united into a tube. Stigma deflexed, its head cloven, and, when in perfection, gaping, fringed beneath with short hairs. Capsule 2-celled. Seeds numerous, small. Herb milky, fœtid and very acrid.



SISON *Amomum*.*Hedge Honewort.*PENTANDRIA *Digynia*.

GEN. CHAR. *Fruit* ovate, striated. *Involucra* both general and partial, each of about 4 leaves. *Petals* lanceolate, inflexed.

SPEC. CHAR. *Leaves* pinnated. *Umbels* erect, of about four rays.

SYN. *Sison Amomum*. *Linn. Sp. Pl.* 362. *Sm. Fl. Brit.* 315. *Huds.* 119. *With.* 300. *Hull.* 62. *Relh.* 116. *Sibth.* 97. *Abbot.* 63.

Sium aromaticum, *Sison* Off. *Raii Syn.* 211.

ONE species of *Sison*, and that the more rare, has appeared in our 4th volume, t. 228; the only remaining British plant of this genus is *S. Amomum*, which not very unfrequently occurs in rather moist spots under hedges, where the soil is marly or chalky, flowering in the latter part of summer.

Root annual or biennial, spindle-shaped, with lateral branches. Stem erect, 2 or 3 feet high (except in dry places), much branched and spreading, rather zigzag, round, furrowed, smooth, leafy. Leaves pinnate with a terminal lobed leaflet, unequally serrated; the upper ones more compound or divided. Umbels numerous, terminal, solitary, erect when in flower, composed of about 4, seldom more, unequal rays, with a small four-leaved general involucre. Partial umbels likewise of but few and unequal rays, with a minute four-leaved partial involucre. Flowers of 5 white inflexed petals, broader than those of *S. segetum*. Calyx scarcely perceptible. Fruit ovate, short, compressed, ribbed.

The seeds are aromatic and pungent when ripe and dry; but in an early state they, like the whole herb, have a peculiarly nauseous smell.



Elatine tripetala.

ELATINE Hydropiper.

*Small Waterwort.**OCTANDRIA Tetragynia.*

GEN. CHAR. *Cal.* of 3 or 4 leaves. *Petals* 3 or 4.
Caps. superior, of 3 or 4 cells and as many valves;
 the partitions opposite to the fissures. *Seeds* many.

SPEC. CHAR. Leaves in pairs.

SYN. Elatine Hydropiper. *Linn. Sp. Pl.* 527. *Fl.*
Dan. t. 156.

Alsinastrum serpyllifolium, flore roseo tripetalo, et
 flore albo tetrapetalo. *Vaill. Par.* 5. t. 2. f. 1, 2.
 Hydropiper. *Buxb. Cent.* 2. 36. t. 37. f. 3.

NEVER observed in Britain, till the Rev. Mr. Williams found it, flowering in August 1798, about the eastern shore of Bomere pool near Condover, Shropshire, in a loose sandy soil. This acquisition is more peculiarly welcome to the British Flora, as the other species of *Elatine* must be erased from our catalogue; Dillenius's original specimen proving (strange to tell!) no other than *Centunculus minimus*, a plant quite unlike the *Elatine Alsinastrum*.

Root annual, fibrous, white. Herb smooth in every part, generally under water, even the flowers, which remain closed to shelter the stamina from wet. Sometimes however it grows about the margin of the pool, entirely out of the water. In the latter case it appears from Vaillant that the petals are reddish; in the former white: for both his descriptions most assuredly belong to one species, whose flowers when luxuriant (*Vaill. fig. 2.*) have 4 calyx-leaves, 4 petals, 8 stamina, 4 cloven styles, and a four-cleft capsule; as we have found some on our specimens; though most of ours have 3 calyx-leaves, 3 petals, 6 stamina, 3 styles, and 3 valves to the capsule, as in Vaillant's *fig. 1.*

This plant might be overlooked for *Montia fontana*, though very different when examined. The stems are procumbent, throwing out roots. Leaves opposite, spatulate, entire. Flowers solitary, on axillary stalks. Buxbaum called it *Hydropiper* (Water Pepper) because he erroneously fancied it allied to the *Pilularia*, whose fruit looks like pepper, see *t.* 521.

956

615



Dianthus proterus

Des. et. Hb. P. 181. Pub. par. de J. B. Lamarck, 1815.

DIANTHUS prolifer.

Proliferous Pink.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* cylindrical, of one leaf, with scales at the base. *Petals* 5, with claws. *Caps.* cylindrical, superior, of 1 cell.

SPEC. CHAR. Flowers clustered, in heads. Calyx-scales ovate, blunt, beardless, membranous, overtopping the tube.

SYN. *Dianthus prolifer.* *Linn. Sp. Pl.* 587. *Sm. Fl. Brit.* 461. *Huds.* 184. *With.* 409. *Hull.* 94.

Caryophyllus sylvestris prolifer. *Dill. in Raii Syn.* 337.

THIS very uncommon *Dianthus* grows on a gravelly, or rather marly, soil, in not more than 3 or 4 places in England. Dillenius first had it from Sussex : Mr. Ballard, an accurate and experienced observer, has found it in Worcestershire : Mr. Humphrey met with it many years ago in the borders of a field out of St. Austin's gates, Norwich, where it still occurs, more or less sparingly in different seasons, flowering from July to the very end of autumn.

Root annual, small. Stems erect, rushy, slender, little branched except when very luxuriant, round, leafy, smooth. Leaves linear, pointed, rough on the edge; the lowermost spatulate. Heads terminal, ovate, the dry brown membranous scales enfolding many flowers, one or two of which only are in perfection at once, and they are so tender and short-lived that we have been obliged to have recourse to a garden specimen to express them. Calyx-tube slender, furrowed, shorter than the scales. Petals notched. Stamina various in length, with blueish antheræ. Capsule cylindrical, containing many flat black seeds.

In gardens this plant grows with great luxuriance, and is not unornamental, though the flowers want the fragrance which many pinks possess.

257

621



*Silene
maritima.*

Desf. nom. Described by M. deCandolle. London.

SILENE maritima.

Sea Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* swelling, of one leaf. *Petals* 5, with claws. *Caps.* superior, imperfectly 3-celled, bursting at the summit. *Seeds* many.

SPEC. CHAR. Flowers mostly solitary, terminal. Petals cloven, crowned at the mouth. Calyx smooth, reticulated with veins. Stems prostrate at the base.

SYN. *Silene maritima.* *With.* 414. *Sm. Fl. Brit.* 468. *Hull.* 98.

S. amœna. *Huds.* 188. *Lightf.* 227.

Cucubalus Behen β. *Linn. Sp. Pl.* 591.

Lychnis maritima repens. *Raii Syn.* 337.

ABUNDANT on the sea shore both in sandy and rocky places, flowering in August and September. Our specimen was sent by Mr. W. Borrer from Sussex. Like some other maritime plants it is also truly alpine, flourishing in the stony beds of mountain torrents. Having cultivated it several years in various soils, and propagated it by seed, we can now speak to its certainty as a species; indeed few plants vary less in habit, though in the number of its styles, and their corresponding fruit-cells, it varies (unfortunately for the Linnæan artificial system) from 3, the prevailing number, to 4 or 5. The petals are constantly crowned at their base; a circumstance which sometimes, though rarely, occurs in *Silene inflata* *Fl. Brit.*, figured under the Linnæan name of *Cucubalus Behen* in our *t.* 164; and which proving in some other cases not to be relied on, we have now set aside as a generic character.

The plant before us has a creeping perennial root, many prostrate leafy stems, whose extremities only grow upright, and which terminate in a handsome white flower, generally solitary, sometimes accompanied by 1 or 2 more; but the stem never bears so many flowers as in *S. inflata*, neither is the capsule so long as in that species. In the leaves and calyx there is a considerable affinity between the two.

938
6.92



*Arrenaria
maritima*

ARENARIA marina.

*Sea Spurrey-Sandwort.**DECANDRIA Trigynia.*

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. *Capsule* superior, of 1 cell, with many seeds.

SPEC. CHAR. Leaves semicylindrical, fleshy, awnless. Stipulæ membranous, sheathing. Seeds compressed, bordered, smooth.

SYN. *Arenaria marina.* *Fl. Dan.* t. 740. *Sm. Fl. Brit.* 480. *Hull.* 95.

A. rubra β. *Linn. Sp. Pl.* 606. *Lightf.* 230. *Huds.* 193, (media).

A. media. *With.* 422.

Spergula maritima, flore parvo cæruleo, semine vario. *Dill. in Raii Syn.* 351.

β. *Arenaria media.* *Sp. Pl.* 606, the synonyms wrong.

A. marina. *With.* 422. *Relh.* 172.

A. rubra γ, (marina). *Huds.* 193.

Alsine Spergulæ facie media. *Raii Syn.* 351.

COMMON on most parts of the British coast, flowering from June to August.

The root is spindle-shaped and strong, though annual. Stems prostrate, spreading circularly, quite smooth, except at the summit, as in *A. rubra*, t. 852, with which this species agrees in most respects, but essentially differs from it in the following characters. The leaves are fleshy, semicylindrical, destitute of a bristle at their points: the flowers and capsules are considerably larger, especially the latter: but the seeds more peculiarly distinguish *A. marina*, being (instead of wedge-shaped with a rough external edge) round, flat, smooth, and encircled by a membranous border, which varies in breadth and colour, (even in seeds of the same capsule, as Dr. Stokes well observes,) being either white and elegantly striated, or brownish and less conspicuous. The latter state we are inclined to think merely an imperfection in growth or ripeness, and therefore the two varieties marked above, with their synonyms, might perhaps safely be reduced to one.

959.
1235.



Euphorbia Peplus

Non. ad. P. 1235. 12. 1235. 12. 1235. 12.

EUPHORBIA Peplus.

Petty Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectararies* 4 or 5, standing on the calyx. *Caps.* stalked; 3-lobed.

SPEC. CHAR. Umbel three-branched, forked. Partial involucra ovate. Leaves entire, obovate, on footstalks.

SYN. *Euphorbia Peplus.* *Linn. Sp. Pl.* 653. *Sm. Fl. Brit.* 514. *Huds.* 208. *With.* 447. *Hull.* 105. *Relh.* 185. *Sibth.* 151. *Abbot.* 105. *Curt. Lond. fasc.* 1. *t.* 35.

Tithymalus parvus annuus, foliis subrotundis non crenatis, Peplus dictus. *Raii Syn.* 313.

FEW weeds are more general, in all kinds of arable land, than this Spurge, which is known from its companion the *E. helioscopia*, *t.* 883, by being generally rather more slender and delicate, but especially by its entire leaves, horned nectaries, and three-cleft umbel. It flowers at the same season, and is equally efficacious in curing warts.

Root annual, tapering. Herb grass-green, smooth, occasionally tinged with purple. Stem erect, mostly branched at the base, leafy. Leaves scattered, stalked, obovate, entire. Umbel of 3 branches, repeatedly forked, its leaves, or partial involucra, opposit, nearly sessile, ovate, entire, unequal at the base. Nectaries 4, crescent-shaped with taper horns, green, yellow in decay. Capsule smooth. Seeds marked with depressed dots.

The specific name of this plant is much too near that of *E. Peplis*, more especially as they appear to have one common derivation.



704

1000

Spiraea Ulmaria.

SPIRÆA Ulmaria.

Meadow-sweet.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capsules* superior, of 2 valves, with many seeds.

SPEC. CHAR. Leaves interruptedly pinnate, downy beneath; the terminal leaflet largest and lobed. Flowers cymose, with many styles.

SYN. *Spiræa Ulmaria.* *Linn. Sp. Pl.* 702. *Sm. Fl. Brit.* 536. *Huds.* 217. *With.* 464. *Hull.* 110. *Relh.* 192. *Sibth.* 157. *Abbot.* 110. *Curt. Lond. fasc.* 5. *t.* 33.

Ulmaria. *Raii Syn.* 259.

MEADOW-SWEET, or Queen of the Meadows, as it is sometimes called, abounds in moist meadows about the banks of rivers and ditches, perfuming the air with the sweet hawthorn-like scent of its plentiful blossoms from June to August. The green parts of the herb partake of a similar aromatic flavour when rubbed or chewed, approaching to the taste of orange-flower water, a flavour possessed in higher perfection by the American *Gualtheria*. It is amusing, at least, to remark such resemblances; and the student of Natural Orders may in many cases be assisted by them, though in the present instance they may baffle his skill.

The root is fibrous and perennial. Stems erect, 3 or 4 feet high, angular and furrowed, leafy, branched in the upper part. Leaves interruptedly pinnate; their leaflets very unequal in size, sharply serrated, clothed beneath with white down; the terminal one remarkably large and three-lobed. A pair of rounded serrated stipulæ are joined to the common leaf-stalk, and clasp the stem. Flowers in a large very compound cyme, whose side branches rise much above the central one. Stamina numerous. Styles 6 or 8, on which subject we have already enlarged in *vol.* 4. *p.* 284. Germens and capsules twisted.

961.

852.



Prunella
vulgaris.

PRUNELLA vulgaris.

Self-heal.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Filaments* forked, one point bearing the *anthera*. *Stigma* cloven.

SPEC. CHAR. All the leaves ovate-oblong, on foot-stalks.

SYN. *Prunella vulgaris*. *Linn. Sp. Pl.* 837. *Sm. Fl. Brit.* 646. *Huds.* 264. *With.* 541. *Hull.* 134. *Relh.* 236. *Sibth.* 190. *Abbot.* 133. *Curt. Lond. fasc. 4. t. 42.* *Mart. Rust. t. 137.*

Prunella. Raii Syn. 238.

THE common *Prunella* grows in open airy pastures, flowering in July and August. The meaning of the English name *Self-heal* is not very clear, and *self* probably is a corruption of some word now forgotten; perhaps *slough*, for the healing powers of the herb are particularly celebrated in sore throats and ulcers of the mouth and fauces; which Ray tells us are called *Die Breune* in German. Hence comes the name *Brunella*, softened by Linnæus into *Prunella*, but still confessing its barbarous origin.

Root fibrous, or rather somewhat creeping, perennial. Stems from 6 to 10 inches high, branched chiefly below, square, rough with erect hairs, leafy. Leaves ovate, or oblong, bluntish, entire or slightly waved, hairy. Spikes terminal, solitary, cylindrical, blunt, dense, furnished with a pair of nearly sessile leaves at their base. Each whorl of flowers is accompanied by a pair of kidney-shaped waved coloured bractæ. Calyx closed when in fruit, its upper lip remarkably abrupt and broad, with 3 small teeth; lower cloven. Corolla of a violet hue, occasionally red or white. The middle segment of its lower lip is toothed as in *Nepeta*. but the forked stamina sufficiently discriminate the genus before us.



962.
953.

Brassica
Monensis.

SISYMBRIUM monense.

Dwarf Sea Rocket.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* cylindrical, bursting with nearly straight valves. *Cal.* and *Cor.* spreading.

SPEC. CHAR. Pods nearly upright. Leaves pinnatifid, slightly hairy. Stems simple, almost naked, smooth.

SYN. *Sisymbrium monense.* *Linn. Sp. Pl. ed. 1.* 658.
Sm. Fl. Brit. 704. *Lightf.* 353. *t.* 15. *f.* 1.
Dicks. H. Sicc. fasc. 17. 13.

Brassica monensis. *Huds.* 291. *With.* 593. *Hull.* 148.

Eruca monensis laciniata lutea. *Raii Syn.* 297.

THIS species of *Sisymbrium* is scarcely to be found except on the shores of Anglesea, Man, Cumberland and the west of Scotland. Our wild specimen was gathered on the Isle of Walney by W. Hustler, Esq. in June 1801.

The root is perennial and strong. Stems several, 6 or 8 inches high, spreading, unbranched, round, smooth, for the most part destitute of leaves, except about the bottom. Leaves many, on longish stalks, rather fleshy and inclining to a glaucous hue, pinnatifid; their lobes narrowish, distant, entire or toothed, furnished occasionally here and there with a few bristly hairs. Flowers corymbose, large. Calyx tipped with hairs, its leaves but little expanded. Petals lemon-coloured, veined with purple. Pods loosely spreading, not quite erect, beaked, obscurely square, smooth.—In a garden the stems become taller and leafy, sometimes branched.

The specimen from Provence, sent by Gerard, which Linnæus had before him when writing the second edition of *Species Plantarum*, we suspect (as he did) to be a distinct species, having smaller flowers, less evidently veined, and differing in its general aspect. We therefore quote the first edition of that work, in which this species was merely adopted from Dillenius, who unquestionably described our plant.

963.

944.



Sisymbrium Sophia.

S. Sophia. Linn. Sp. Pl. 1000.

SISYMBRIUM Sophia.

Flix-weed.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* cylindrical, bursting with nearly straight valves. *Cal.* and *Cor.* spreading.

SPEC. CHAR. Leaves doubly pinnate, a little hairy. Petals smaller than the calyx.

SYN. *Sisymbrium Sophia.* *Linn. Sp. Pl.* 920. *Sm. Fl. Brit.* 704. *Huds.* 297. *With.* 582. *Hull.* 150. *Relh.* 258. *Sibth.* 208. *Abbot.* 143. *Mart. Rust. t.* 57.

Erysimum Sophia dictum. *Raii Syn.* 298.

FREQUENT about rubbish, waste ground, and dung-hills, flowering in July and later.

Root annual, small, tapering. Stem about 2 feet high, erect, branched, round, very leafy. Leaves alternate, spreading, doubly pinnate, or perhaps more properly pinnatifid, for the principal and partial divisions are all confluent; the ultimate segments are lanceolate, acute, entire, more or less evidently hairy; the terminal ones largest. Flowers very small, pale-yellow, the minute petals almost hidden by the calyx, which has nearly as much colour as themselves. The corymbus soon grows out into a very long spike of numerous slender pods, which stand erect on spreading stalks. Seeds many, small and reddish.

Few plants have less pretensions to beauty, though the feathery segments of the leaves are not devoid of symmetry.

The old name *Flix-weed* arose from the quality attributed to this plant of curing immoderate laxity of the bowels.

964

1003



Varicellaria conspurcata?

LICHEN conspurcatus.

Dusty Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust thick, greyish-white, cracked, rugose, at length mealy; very white within. Shields numerous, scattered, minute; at first prominent and pale brown; then concave and black.

MR. D. TURNER first detected this Lichen on the old Roman walls of Burgh castle in Suffolk, afterwards at Scole inn, Norfolk, and other places. We have observed the freestone church of Cawston in the same county in many parts entirely encrusted with it, particularly the elegant carving at the west end. It seems always to choose calcareous stones, whether of a finer or coarser texture. We have not been able to refer it to any species in the work of Acharius, though we are not without a suspicion of its being his *L. calcarius*, a conjecture we may hereafter be able to confirm or disprove, but in the mean while we would not withhold a plant so totally new to British botanists.

The crust spreads widely, and in moist weather may easily be detached from the stone; it is from half a line to nearly 2 lines in thickness, extremely white and chalky within, splitting perpendicularly, so as to look fibrous. The surface is greyish-white, very rugged and unequal, cracked into small irregular portions, warty and powdery with age, so as to assume a dirty or dusty aspect, to which the innumerable young shields of various sizes, sprinkled over the crust, like grains of clear brownish sand, also contribute. The shields when at maturity are still very small, in a great measure immersed in the crust, totally black, concave, with an entire elevated edge.

2064



Lecidea cornea?

Printed by J. Gower, London.

L I C H E N *corneus*.*Horny-cupped Lichen.*

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts. Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust mealy, thin, white. Shields a little elevated, brown, semi-transparent, with a thick, elevated, even, smooth, paler border.

SYN. *Lichen corneus*. *With.* v. 4. 20. t. 31. f. 3.
Hull. 290.

FIRST found by J. W. Griffith, Esq. on oaks at Garn near Denbigh, and communicated to Dr. Withering, the only writer (except Dr. Hull) who appears hitherto to have noticed this species. We have received fine specimens from Eggleston, Durham, by favour of the Rev. Mr. Harriman; Mr. W. Brunton also has found it on oaks in Studley wood near Ripon. In the more champaign parts of England it has not yet occurred.

The thin, mealy, white (or greenish-white) crust spreads closely over the inequalities of the bark in small interrupted patches. The shields are pretty numerous, irregularly scattered, a little elevated on a swelling, as it were, of the crust, which enfolds their base. They are small, nearly uniform in size, concave, of a brown horn-like colour, in some degree transparent, especially the border, which is paler and rather waxy, much elevated, smooth and even.

With the greatest deference for Mr. Griffith's opinion, whose accuracy and penetration we have experienced, we conceive this plant, which sometimes grows mixed with *Lichen pulicaris*, may have led him to suspect the metamorphosis of *L. tricolor* (that is *marmoreus*) into *pulicaris*, see *With.* v. 4. 23. The shields of *corneus* have in fact an occasional resemblance to those of *marmoreus* when both are in decay.

966

2460



Calothamnion roseum

Det. & Des. Published by J. E. Smith, London

C O N F E R V A rosea.

Rose-coloured Conferva.

CRYPTOGAMIA *Algæ.*

GEN. CHAR. *Seeds* produced in round, solitary, closed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Rose-coloured, repeatedly branched, very slender and tufted; articulations pellucid, a little contracted. Capsules sessile, obovate, lateral, leaning one way.

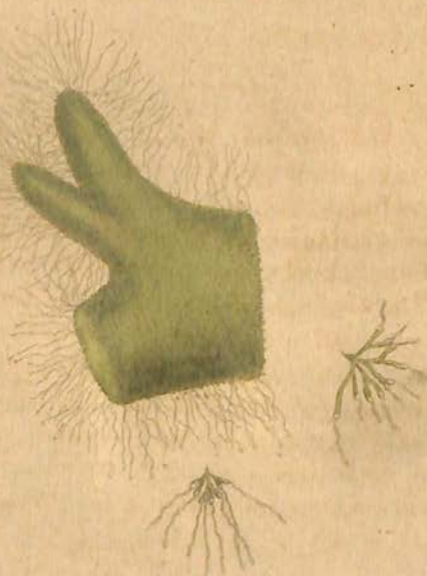
SYN. *Ceramium roseum.* Roth. *Catalect. Bot. fasc.* 2. 182.

MR. SOWERBY first observed this elegant little *Conferva* in August 1797, growing in dense tufts upon *Fucus vesiculosus* by the river side at Yarmouth. Specimens sent by Dr. Roth to Mr. Turner prove it to be the *Ceramium roseum* of his *Catalecta Botanica*, which no other writer seems to have mentioned. We have profited by his excellent and ample description in the following more concise one.

Several stems, an inch or two long, grow from a small round shield-like base. Each stem is repeatedly and alternately branched; the ultimate branches very numerous, tufted, extremely slender. The joints, most visible in the stem and larger branches, are oblong, rather swelling; their articulations, or points of connection, contracted, exquisitely pellucid, and colourless. Capsules numerous, ranged in a single row on the upper side of each general and partial branch, small, nearly sessile, obovate when ripe, becoming dark purple by age. The general hue of the plant is an elegant rose-colour.



Chaetophora endiviaefolia



U L V A *incrassata*.*Thick Laver.*

CRYPTOGAMIA *Algæ.*

GEN. CHAR. *Fron*d membranous or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle.

SPEC. CHAR. *Fron*d gelatinous, flat, sinuated and toothed, green, thickened at the margin, clothed with tufted jointed filaments.

SYN. *Ulva incrassata*. *Huds.* 572. *With.* v. 4. 124. *Relh. Suppl.* 2. 23.

Tremella incrassata. *Hull.* 310.

T. palustris gelatinosa, damæ cornuum facie. *Dill. Musc.* 51. t. 10. f. 10.

Conferva gelatinosa, damæ cornua repræsentans. *Dill. in Raii Syn.* 60.

FOUND by T. F. Forster, Esq. growing on *Hypnum riparium*, and intermixed with *Chara hispida*, in a pond at Finchley. The fronds are much branched and divaricated, variously sinuated and toothed, compressed, the edge of their lower part (but not of the upper subdivisions) thicker than the middle. The whole plant is gelatinous and slippery, of a grass-green hue. Minute seeds are scattered through its internal substance. The surface is everywhere clothed with minute thick-set tufts of branched filaments, which when very highly magnified appear jointed or beaded, somewhat like a *Conferva*. A similar structure in other species, however, seems to prove these tufts a part of the plant, and not a parasitical production.



Rivularia angulosa?

Sept. 1. 1862. Published by J. L. Gower, London.

ULVA pruniformis.

Plum Laver.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Fronde* membranous or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle.

SPEC. CHAR. *Fronde* globose, gelatinous, filled with soft pulp, olive-green, clothed with awl-shaped filaments.

SYN. *Ulva pruniformis*. *Linn. Sp. Pl.* 1633. *Huds.* 572. *With.* v. 4. 120. *Relh. Suppl.* 3. 14. *Abbot.* 274. *Tremella pruniformis*. *Hull.* 310.

MR. HUDSON mentions the lakes of Westmoreland as the native place of this singular *Ulva*. Our specimens were collected by Mr. Dawson Turner in turf-pits not far from Yarmouth.

It grows on aquatic plants under water, sessile, globose, of various sizes from that of a pea to a bullace plum, which last it frequently more exactly resembles by means of a furrow or contraction on one side. Its colour is a dull or olive green. The surface is clothed with shaggy awlshaped filaments, tapering into very slender points, which, though not jointed, evince the affinity of this plant to that in our last plate. The coat or skin of this *Ulva* is moderately thick, fleshy or gelatinous, enveloping a mass of pale soft pulp, in which Linnæus observed the minute seeds. His description in *Fl. Suecica*, p. 434, is excellent, and leaves no doubt as to the identity of his plant.

969.

057.

*Sinapis nigra.*

SINAPIS nigra.

*Common Mustard.**TETRADYNAMIA Siliquosa.*

GEN. CHAR. *Cal.* widely spreading. Claws of the petals straight. *Nectariferous glands* 4. *Pod* more or less cylindrical, the partition longer than the valves.

SPEC. CHAR. Pods smooth, square, close pressed to the stem. Upper leaves linear-lanceolate, entire, smooth.

SYN. *Sinapis nigra.* *Linn. Sp. Pl.* 933. *Sm. Fl. Brit.* 722. *Huds.* 297. *With.* 595. *Hull.* 148. *Relh.* 259. *Sibth.* 209. *Abbot.* 146. *Woodv. Med. Bot. t.* 151. *Mart. Rust. t.* 51.

Sinapi sativum secundum. *Raii Syn.* 295.

THE common table Mustard, whose seeds are one of the most useful and wholesome of stimulants, both in cookery and medicine, grows very frequently about the borders of fields, hedge banks, and waste ground, flowering in June and July.

The root is annual, and small. Stem upright, throwing out a number of widely spreading branches, round, smooth, leafy. Lower leaves lyrate, rough, variously lobed and toothed; upper ones lanceolate, spreading or deflexed, entire, quite smooth, standing on short footstalks. Flowers numerous, bright yellow. Calyx a little tinged with yellow. Pods short, erect, and standing close to the main stalk, quadrangular, tipped with the short square permanent style; their surface but little uneven, and generally quite destitute of hairs. Seeds several, round, smooth, brown.

970
1618.



ERVUM hirsutum.

Hairy Tare.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* capitate, hairy all over.

SPEC. CHAR. Stalks many-flowered. Pods hairy, each containing two seeds.

SYN. *Ervum hirsutum*. *Linn. Sp. Pl.* 1039. *Sm. Fl.*

Brit. 776. *Huds.* 321. *With.* 640. *Hull.* 166.

Relh. 275. *Sibth.* 225. *Abbot.* 159. *Curt. Lond.*

fasc. 1. t. 54. *Dicks. H. Sicc. fasc.* 8. 13.

Cracca minor. *Raii Syn.* 322.

BUT too common in corn-fields, to which in wet seasons it is particularly destructive; it also grows in various kinds of cultivated ground, and also about hedges. It flowers and seeds copiously from June till autumn.

Root annual. Stems branched from the bottom, weak, angular, nearly smooth, leafy, climbing by means of branched tendrils which terminate the common footstalks. Leaflets numerous, alternate, elliptical, notched at the end. Stipulæ half-halberdshaped, occasionally toothed. Flowers from about 5 to 7 on a longish axillary stalk, small, pale blue, with a dark spot on each side of the point of the keel. Calyx not quite so long as the corolla, with 5 narrow teeth. Pods pendulous, short, compressed, hairy, containing two prominent seeds.

The essential character of this genus is unquestionably the capitate stigma, hairy on all sides; for the Linnæan mark, "calyx in 5 divisions the length of the corolla," only agrees with *Ervum Lens*, which is a true *Cicer*, and the remaining species, except *hirsutum* and *tetraspermum*, will be found to agree much better both in habit and character with other genera. See *Fl. Brit.* 776.

976
1048.



Medicago lupulina.

Medicago lupulina L.

M E D I C A G O lupulina.

*Lucerne**Black Medick, or Nonesuch.*

DIADELPHIA Decandria.

GEN. CHAR. *Pod* compressed, spiral, forcing the keel of the corolla from the standard.

SPEC. CHAR. Spikes ovate. Pods kidney-shaped, veiny, rugged, single-seeded. Stem procumbent.

SYN. *Medicago lupulina*. Linn. *Sp. Pl.* 1097. Sm. *Fl. Brit.* 797. Huds. 330. With. 659. Hull. 165. Relh. 286. Sibth. 232. Abbot. 165. Curt. Lond. fasc. 2. t. 57. Mart. Rust. t. 19.

Trifolium luteum lupulinum. Raii *Syn.* 331.

IF in the preceding page we have described a noxious weed, the plant now under consideration has far different claims to notice, being one of the most valuable among the *artificial grasses*; a term given by agriculturists to such plants as are sown for a crop, instead of the spontaneous herbage; and the Norfolk farmers have distinguished this by the name of *Nonesuch*. It is esteemed excellent fodder for sheep; and is often sown with *Lolium perenne* for a crop of hay. In a wild state it frequently occurs, both in pastures and fields, flowering from May to August.

The root is annual, tapering, branched. Stems several, spreading widely on the ground, angular, leafy. Leaves like those of a Trefoil, the leaflets obovate or rhomboid, finely toothed at the anterior edge, veiny. Stipulæ toothed. Spikes ovate, many-flowered, on long stalks. Flowers small, bright yellow. Pods kidney-shaped, with the traces of a spiral structure, very black, rugged and veiny, sometimes hairy, each containing a single compressed yellowish seed. By these pods, and even by their spiral rudiments in the flower, it is known from every plant with which it could otherwise be confounded.

PICRIS echioides.

*Bristly Ox-tongue.**SYNGENESIA Polygamia-æqualis.*

GEN. CHAR. *Receptacle* naked. *Cal.* double; the inner equal; the outer lax. *Down* feathery. *Seeds* transversely rugged.

SPEC. CHAR. Outer calyx of five very large prickly leaves. Seed-down stalked. Leaves waved.

SYN. *Picris echioides.* *Linn. Sp. Pl.* 1114. *Sm. Fl. Brit.* 814. *Huds.* 342. *With.* 673. *Hull.* 172. *Relh.* 297. *Sibth.* 240. *Abbot.* 168. *Curt. Lond. fasc.* 3. t. 51.

Hieracium echioides, capitulis Cardui benedicti. Raii Syn. 166.

FOUND about hedges, borders of fields and banks, principally on a clay or loamy soil, flowering in June and July, but it is not a plant of general occurrence. About London it seems to be more frequent than in Norfolk. We have however seen it in unusual abundance in the grounds of Edward Rigby, Esq. at Framingham near Norwich, and by Wrongay church five miles from Lynn.

Root annual, tap-shaped, often branched. Herb rather milky and very bitter, remarkable for the rigid spines, each growing out of a white tubercle, which are scattered over it, and which, added to other bristles that fringe the leaves and clothe the stem, cause it not to be handled with impunity. The leaves are undulated, and of a bright shining green; the upper ones heart-shaped, clasping the stem, which rises to 2 or 3 feet in height, and is much branched. Flowers rather large, and of a full yellow. Outer calyx of 5 large heart-shaped leaves, a little distant from the inner, which consists of about 8 close leaves, equal in length, each producing from near its top a singular pinnate purplish awn. Seeds beautifully wrinkled or striated transversely, bearing their plummy down on a stalk.

973.
1112



Carduus
arvensis

See the Botanical Magazine

CARDUUS acanthoides.

*Wetted Thistle.*SYNGENESIA *Polygamia-æqualis.*

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves decurrent, sinuated, spinous. Calyx globose, not quite sessile; its scales linear, recurved.

SYN. *Carduus acanthoides.* *Linn. Sp. Pl.* 1150. *Sm. Fl. Brit.* 848. *With.* 698. *Hull.* 179. *Syn.* 176. *Relh.* 304.

C. crispus, *Huds.* 350. *Lightf.* 452.

C. polyacanthos. *Curt. Lond. Jasc.* 6. t. 54. *Sibth.* 245. *Abbot.* 175.

C. caule crispo. *Raii Syn.* 194.

THIS species of Thistle, though not common, is rather more frequently to be met with, about hedges and dry waste places, than the *tenuiflorus*, v. 6. t. 412, with which some of its synonyms have been confounded. Hudson and Lightfoot took it for the *crispus* of Linnæus, which is not a British plant.

C. acanthoides flowers in June and July. Its root is annual, spindle-shaped. Whole plant more green and less hoary than *tenuiflorus*. Stem 3 feet or more in height, branched, furrowed, clothed on every side with scalloped wings formed by the decurrent leaves. These wings, as well as the leaves themselves, which are deeply sinuated, have all their edges fringed with innumerable divaricating spines of various lengths. The flowering branches are elongated and a little spreading, terminating in irregular clusters of purple erect flowers, generally on short partial stalks. The calyx is globose, very different from that of *tenuiflorus*; its scales linear, a little recurved at the tip, especially when old, terminating in slender spines, and but slightly woolly. Wing of the seed deciduous, bristly, rough.

974
1116.



*Cirsium
palustre.*

CARDUUS palustris.

*Marsh Thistle.*SYNGENESIA *Polygamia-æqualis.*

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves decurrent, pinnatifid, toothed, spinous, rough. Calyx ovate, clustered; its spines minute. Down feathery.

SYN. *Carduus palustris.* Linn. *Sp. Pl.* 1151. Sm. *Fl. Brit.* 850. Huds. 352. With. 697. Hull. 179. Relh. 305. Sibth. 245. Abbot. 176. Curt. Lond. fasc. 6. t. 56. Raii *Syn.* 194.

ONE of the most frequent Thistles in marshy places, boggy woods, and on wet commons, flowering in July and August.

Root biennial, branched. Stem erect, very straight, from 3 to 6 feet in height, angular, winged as in the preceding, but the wings are more deeply sinuated or interrupted; the branches, likewise winged, are long, spreading, wand-like, often purplish. Leaves dark-green, rough, deeply pinnatifid, toothed, very spinous. Flowers terminal, clustered, deep purple, though a solitary plant with white flowers often occurs among a number of the usual colour. Calyx ovate or nearly globose; its scales smoothish, obovate or bluntish, tipped with very short harmless spines, and furnished with a dilated keel at their upper part. Seeds very smooth. Down feathery, deciduous.

This can scarcely be confounded with any other British *Carduus*. Its long, wand-like branches, and the wet situations it always prefers, make it sufficiently known. The flowers are smaller than those of *C. acanthoides*, and their abrupt close scales, tipped with small short harmless prickles, and winged or keeled at the back, added to the feathery seed-down, clearly distinguish the *palustris*.

975.
1117.



*Cnicus
arvensis.*

Art. et. Sculp. Jussieu. et. P. Bouché.

CARDUUS arvensis.

*Creeping Thistle.*SYNGENESIA *Polygamia-æqualis.*

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves sessile, pinnatifid, spinous. Stem panicled. Calyx ovate; its spines minute. Down feathery.

SYN. *Carduus arvensis.* *Sm. Fl. Brit.* 851. *Curt. Lond. fasc.* 6. *t.* 57. *Sibth.* 245.

C. vulgatissimus viarum. *Raii Syn.* 194.

Serratula arvensis. *Linn. Sp. Pl.* 1149. *Huds.* 349. *With.* 696. *Hull.* 180. *Relh.* 303. *Abbot.* 174. *Mart. Rust. t.* 132.

WE most heartily assent to Mr. Curtis's removal of this plant from *Serratula* to *Carduus*, it being undoubtedly of the same genus as the species in our last plate, and possessing, like that, the essential characters of *Carduus* and not of *Serratula*. The English name we have chosen seems to express all Mr. Curtis intended, as well as his epithet *cursed*; for the lazy farmer may benefit his fields more by attending to its mode of growth, than by all the curses he perhaps has often tried in vain. While however we perpetually see *annual* thistles, for want of timely mowing, suffered to spread their seeds over a whole country, we despair of the requisite means being adopted to overcome the deeply creeping *perennial* roots of this very troublesome weed.

The botanist can not mistake this species. Its stems are upright, about a yard high, panicled, and bearing many palish purple flowers, now and then white. Leaves sessile, not decurrent, smoothish, pinnatifid, very spinous. Calyx ovate; scales broad-lanceolate, downy at their edge, tipped with a small spine. Seed-down feathery, deciduous, not permanent as in *Serratula*.

It grows everywhere by road-sides and in fields, flowering in July.

976.
1114.



Silphium
laciniatum.

CARDUUS marianus.

Milk Thistle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* swelling, imbricated with spinous scales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves clasping the stem, waved, spinous; the radical ones pinnatifid. Calyx-scales leafy, bent backward, spinous at the edge.

SYN. *Carduus marianus.* *Linn. Sp. Pl.* 1153. *Sm. Fl. Brit.* 851. *Huds.* 353. *With.* 700. *Hull.* 179. *Relh.* 306. *Sibth.* 246. *Abbot.* 176. *Curt. Lond. fasc.* 3. *t.* 54.

C. Mariæ. *Raii Syn.* 195.

IF the idea of a *thistle* were not an impediment, this magnificent plant might be allowed with advantage to ornament such gardens or borders of shrubberies as are on a sufficiently large scale to admit it. In general, however, notwithstanding its beauty, it can only be considered as a cumbrous weed. Wherever it grows it effectually excludes all other vegetables; but, being easily eradicated, is only permitted to establish itself on banks by road-sides, and similar spots, where the flowers are seen about June or July.

The root is tap-shaped and annual. Stem erect, widely branching, smooth, 4 or 5 feet high. Radical leaves many, spreading, pinnatifid; the rest clasping the stem with their heartshaped base; all waved sinuated and spinous at the edge, of a deep shining green, elegantly marbled all along the veins with white, which botanists and physicians of the dark ages report to have been caused by the milk of the Virgin Mary falling upon a plant of this species, and that all its progeny have retained the blessed stain. There is however a refractory heretical variety found near London whose leaves remain entirely green. The large purple flowers grow solitary at the end of each branch. Their calyx is smooth, consisting of broad leaf-like scales, each terminating in a long reflexed strong thorn, fringed at its base with smaller spines. Seeds large and polished.

977
1129.



*Onopordion
Acanthium*

Des. & color. Schrad. by J. Burser

ONOPORDUM Acanthium.

*Cotton-Thistle.*SYNGENESIA *Polygamia-æqualis.*

GEN. CHAR. *Cal.* swelling, its scales spreading and spinous. *Recept.* cellular, a little scaly.

SPEC. CHAR. Calyx-scales spreading every way, awl-shaped. Leaves ovate-oblong, sinuated, woolly on both sides.

SYN. *Onopordum Acanthium.* *Linn. Sp. Pl.* 1158. *Sm. Fl. Brit.* 856. *Huds.* 354. *With.* 704. *Hull.* 180. *Relh.* 307. *Sibth.* 247. *Abbot.* 177. *Curt. Lond. fasc.* 5. t. 57.

Carduus tomentosus, *Acanthium dictus*, vulgaris. *Raii Syn.* 196.

IN waste ground about towns, and by road-sides on a gravelly soil, this very conspicuous plant often occurs; on other soils it is entirely unknown, as in most parts of Yorkshire, Derbyshire, and other rocky or mountainous tracts. It flowers in July or August, and is biennial.

The whole herbage is clothed with a white cottony web, easily detached by rubbing. The stem rises to 4 or 5 feet in height, and is winged, the leaves being completely decurrent, ovate, edged with large unequal spines. Flowers terminal, solitary, large, erect, purple. Calyx globose, becoming depressed or flattish, consisting of innumerable, spreading, lanceolate, cottony scales, tipped with yellow spines. Receptacle cellular like a honey-comb, its partitions rising into unequal pointed scales. Seeds obovate, brown, polished. Down rough, deciduous, turning reddish with age.

The seeds of this, as well as of *Carduus marianus*, are the favourite food of Goldfinches, the *Fringilla carduelis* of Linnæus.

978.
1134.



Artemisia vulgaris.

Herbar. Scit. 17. 17. 17. 17. 17.

ARTEMISIA vulgaris.

*Mugwort.*SYNGENESIA *Polygamia-supcrflua.*

GEN. CHAR. *Recept.* naked or downy. *Seed-down* none. *Cal.* imbricated, the scales roundish and closed. *Florets* of the radius awl-shaped, undivided.

SPEC. CHAR: Leaves pinnatifid, flat, cut; downy beneath. Clusters simple. Flowers ovate. Receptacle naked.

SYN. *Artemisia vulgaris.* *Linn. Sp. Pl.* 1188. *Sm. Fl. Brit.* 865. *Huds.* 359. *With.* 710. *Hull.* 182. *Relh.* 311. *Sibth.* 250. *Abbot.* 179. *Woodv. Med. Bot. t.* 121. *Raii Syn.* 190.

VERY common in waste ground, hedges, and borders of fields, flowering throughout August and later.

Root woody and perennial. Stems 3 or 4 feet high, erect, branched, leafy, marked with numerous longitudinal purplish ribs, smooth. Leaves alternate, pinnatifid, somewhat lyrate, unequally cut; smooth and dark-green above; cottony and very white beneath. Flowers in axillary simple leafy spikes or clusters, erect, or divaricated, ovate, sessile, downy. Tubular florets several, 5-cleft, purplish, furnished with 5 stamina and a cloven pistillum, and surrounded by 5 awl-shaped female flowers which constitute the radius. Receptacle naked. Seeds angular, without down or wing.

The whole plant has a weak aromatic scent, and a slightly bitter flavour. Its medical virtues deserve no notice.—There is a variety destitute of all redness about the stem or flowers, equally common with that we have delineated.

279
1175



Oxyechium
murcinum

Fl. & fr. in situ. ex herb. Acad. Berlin.

PYRETHRUM maritimum.

Sea feverfew.

—————o—————

SYNGENESIA *Polygamia-superflua*.

GEN. CHAR. *Recept.* naked. *Seeds* crowned with a membranous margin. *Cal.* hemispherical, imbricated with sharpish scales, bordered with a membrane.

SPEC. CHAR. Leaves bipinnate, fleshy, awnless; convex above; keeled beneath. Crown of the seeds lobed.

SYN. *Pyrethrum maritimum.* *Sm. Fl. Brit.* 901.

Matricaria maritima. *Linn. Sp. Pl.* 1256. *Lightf.* 491. *With.* 736. *Hull.* 184.

M. inodora γ. *Huds.* 373.

Chamæmelum maritimum perenne humilius, foliis brevibus crassis, obscure virentibus. *Dill. in Raii Syn.* 186. t. 7. f. 1.

—————o—————

OUR specimen of this rare plant was gathered by the late John Adams, Esq., in the loose sand of the shore of Manorbia bay, about 6 miles from Pembroke. Mr. Robson has favoured us with others from Durham. It is perennial, and flowers about July or August.

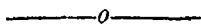
Several stems, various in length, spread on the ground, forming a sort of tuft, being thickly clothed with leaves, though not much branched. They are smooth, shining, mostly purplish. Leaves sessile, doubly pinnate, of a rather dark and shining green, fleshy; the segments short, blunt, destitute of any terminal awns, convex above, and more so beneath. Flowers terminal, solitary, not quite so large as those of *P. inodorum*, t. 676. Calyx smooth, its scales bordered with a very narrow blackish membrane. Disk convex, yellow, broader in proportion to the radius than in *P. inodorum*, from which species this still more essentially differs in having the crown of the seed divided into 3 or 4 lobes. The whole herb is slightly aromatic, and unquestionably distinct from *P. inodorum*, with which Hudson confounds it.

980
1778.

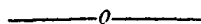


*Anthemis
nobilis.*

ANTHEMIS nobilis.

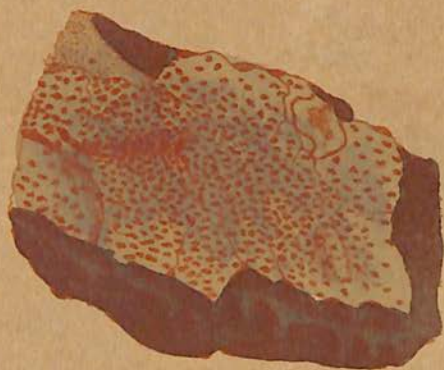
Common Chamomile.*SYNGENESIA Polygamia-superflua.*GEN. CHAR. *Recept.* chaffy. *Seeds* scarcely bordered.*Cal.* hemispherical, nearly equal. *Florets* of the radius more than 5, oblong.

SPEC. CHAR. Leaves doubly pinnate, thread-shaped, acute, a little downy. Scales of the receptacle membranous, scarcely so long as the florets.

SYN. *Anthemis nobilis.* *Linn. Sp. Pl.* 1260. *Sm. Fl. Brit.* 904. *Huds.* 373. *With.* 739. *Hull.* 188. *Sibth.* 258. *Woodv. Med. Bot.* t. 103.*Chamæmelum odoratissimum repens, flore simplici, Raii Syn.* 185.

THE fragrant Chamomile, so useful as a stomachic medicine, is not generally met with wild. We gathered this specimen a little to the south of Lowestoft church, Suffolk, in August last. It always grows on gravelly open commons, spreading close to the earth, and forming considerable patches among the short herbage of such places. When not in flower its scent betrays it when trodden upon. This quality has induced some curious people to plant Chamomile for a green walk in gardens, for which purpose it is recommended by great beauty and richness of foliage, but receives injury from being walked on in frosty weather.

Root perennial, strong. Stems prostrate, branched, villous. Leaves bipinnate, hairy or downy; leaflets slender, cylindrical, entire or lobed. Flowers terminal, solitary, white with a yellowish disk, which in time becomes conical. Seeds very obscurely margined. Scales of the receptacle lanceolate, thin, not rising above the florets. The whole plant is intensely bitter, with a peculiar but agreeable smell. In gardens it is generally double, the florets of the disk being all like those of the radius; but such flowers are not reckoned so strong in flavour as the natural ones.



LICHEN *impolitus*.

Unpolished Lichen.



CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

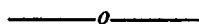
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust white, powdery and cracked.

Tubercles numerous, depressed, oblong, irregular, obtuse, yellowish-brown, clothed with deciduous mealiness, without any border.

SYN. *Lichen impolitus*. *Achar. Prod.* 56.

Verrucaria impolita. *Hoffm. Fl. Germ. v.* 2. 172.



GATHERED, for the first time in Britain, by Mr. D. Turner, on the trunks of trees at Bowton near Barton, Norfolk. A specimen sent by Dr. Schrader proves this to be the *L. impolitus* of the German botanists, and therefore it ought to be what Dr. Acharius has so denominated; but his description of the shields as "margined and at length black," induces a suspicion of his having confounded with this our *L. lynceus*, t. 109, a very distinct species.

L. impolitus has a very white thin inseparable crust, mealy and cracked, not smooth. Innumerable tubercles are regularly dispersed over it, which when young are sunk rather below the surface, and seemingly bordered by the crust, but have no real border of their own. Their form is oblong, obtuse, curved, sometimes very short and roundish; in advanced age they project. They are of a yellowish brown or dull orange hue; but that colour is remarkably concealed by a white mealiness which renders them scarcely distinguishable from the crust, but which is easily rubbed off, and then the tubercles are very evident.

982

2103



Parmelia aquila?

LICHEN aquilus.

Sun-burnt Lichen.

—o—

CRYPTOGAMIA *Alga.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated, somewhat cartilaginous: its segments linear, many-cleft, convex, incurved at the edge, of a dull tawny brown; shaggy beneath. Shields dark brown.

SYN. Lichen aquilus. *Achar. Prod.* 109.*L. fuscus.* *Huds.* 533. *Dicks. II. Sicc fasc.* 6. 25. *Hull.* 293.*L. pullus.* *Lightf.* 825.*L. obscurus.* *With v.* 4. 28.*Lichenoides angustifolium fuscum, scutellis pullis.* *Dill. Musc.* 175. *t.* 24. *f.* 69.

—o—

FOUND on exposed rocks about Edinburgh by Lightfoot: in North Wales by the Rev. H. Davies; and in Cornwall by Mr. Turner, and Mr. Sowerby. It is a rare species, apparently but little known on the continent.

The fronds are entangled and imbricated, forming broadish uninterrupted patches, but loosely fixed to the rocks by the fibrous brown radicles that clothe their under sides, and in dry weather starting from them and becoming very brittle. They are linear, various in breadth, though always narrow compared with most species, repeatedly forked and lacinated, convex (their edges being inflexed), smooth, of a tawny brown or sun-burnt hue, very pale towards their extremities. Shields numerous, not large, dark-brown, with a thick inflexed, rugged or crenate border of the colour and substance of the frond.

We have hesitated which name out of the four synonyms to retain. *Fuscus*, the oldest, has been generally neglected; *pullus* has been given to many other Lichens. Either of these however would have been eligible, as being included in the synonym of Dillenius, had not Dr. Acharius chosen a new and perhaps happier denomination.



Squamaria affinis

LICHEN affinis.
Thinner spongy Lichen.

—————o—————

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated, depressed; segments bluntly lobed and notched, greyish, smooth, concave, white-edged; clothed beneath with dark blueish dense fibres. Shields rusty-coloured, with whitish, elevated, crenate margins.

SYN. Lichen affinis. *Dicks. Crypt. fasc. 4. 24. t. 12. f. 6.*

—————o—————

WE have long known this Lichen (which is found on the trunks of trees in mountainous woods) as a most distinct species, though confounded with *plumbeus*, v. 5. t. 353, by all authors except Mr. Dickson. It grows with *plumbeus*, but is more rare, and has a great affinity to Dr. Swartz's tropical *L. pannosus*.

The fronds spread circularly, and, though imbricated, are flat, and but little elevated in any part above the bark or decayed moss on which they grow. Their numerous segments are smooth, grey, concave, blunt, with a silvery-white edge, and clothed beneath with an uniform woolly coat of tangled blueish-black fibres, akin to the spongy under side of *L. plumbeus*, but by no means equal to it in thickness: neither are these fibres so dense, woolly, or prominent as in *L. pannosus*. The central part of the plant is often powdery. The shields are numerous, larger than those of *plumbeus*, of a reddish chestnut, and rendered conspicuous by their elevated, crenate, inflexed border, of the same polished whitish or silvery grey as the edges of the frond.



Borreria furfuracea

LICHEN furfuraceus.

Branny Lichen.

—————o—————

CRYPTOGAMIA *Algæ.*

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, leathery, decumbent, laciniated and forked; convex, greenish-grey and powdery above; concave, rugged and black beneath. Shields scattered, inflated, reddish brown, with a thin inflexed edge.

SYN. Lichen furfuraceus. *Linn. Sp. Pl.* 1612. *Huds.* 539. *With. v. 4.* 56. *Hull.* 297. *Lightf.* 832. *Achar. Prod.* 173.Lichenoides cornutum amarum, supernè c inereum infernè nigrum. *Dill. Musc.* 157. *t.* 21. *f.* 52.

—————o—————

LICHEN *furfuraceus* is to be found in the most mountainous counties only, and there not frequently. It grows on the trunks of trees, old pales, &c., but seems to prefer rocks of granite or sandy grit, as in the specimens now before us sent by the Rev. Mr. Harriman. The fructification is extremely rare, and several authors confess they have never seen it.

The fronds grow loosely spreading or decumbent in large roundish tufts, and are much branched and repeatedly forked, various in breadth, ending in sharp reddish points. The upper surface is convex, greenish grey, all over powdery; the under concave, rugged or plaited, not powdery, black, having in many parts a blue or purplish tinge. Shields attached to the upper surface, elevated, concave or inflated, with a thin inflexed edge; their disk is brown; their outside grey and mealy like the fronds.

Professor Hoffmann in his *Planta Lichenosa t. 9. f. 2.* gives an excellent representation of the plant in a dry state.



SCHÆNUS albus.

*White-headed Bog-rush.**TRIANDRIA Monogynia.*

GEN. CHAR. *Glumes* chaffy, clustered; the outer ones barren. *Cor.* none. *Seed* 1, roundish, among the glumes.

SPEC. CHAR. Stem triangular, leafy. Flowers clustered. Leaves bristle-shaped. Seed with ten bristles at the base.

SYN. *Schœnus albus.* *Linn. Sp. Pl.* 65. *Sm. Fl. Brit.* 46. *Huds.* 16. *With.* 81. *Hull.* 12. *Relb.* 17. *Abbot.* 10. *Dicks. H. Sicc. fasc.* 1. 2.

Cyperus minor palustris hirsutus, paniculis albis paleaceis. *Raii Syn.* 427.

THIS pretty *Schœnus* is found on turfey bogs, but is rare except in mountainous countries. Mr. Borrer sent it from Suffex. It flowers in July or August, and is perennial.

Whole plant smooth, as Dillenius properly remarks under the above faulty synonym by which it is distinguished in his edition of Ray. Stem from 6 to 12 inches high, erect, leafy, triangular. Leaves setaceous, with a tubular sheathing base. Flowers in small, terminal or axillary, stalked clusters. Glumes white, with a tinge of reddish brown, polished, oblong, concave, acute, slightly keeled. Seed triangular, surrounded with 10 rough bristles about its own length, and crowned by the cloven style which extends but little above the glumes.

A similar plant with brown glumes is occasionally found, which has always been taken for *S. fuscus* of Linnæus; whose own specimen having also a triangular stem, convinced me the two species ought to be united. Mr. Turner however has pointed out a remark in Ehrhart's *Beiträge*, fasc. 4. 155, that *S. fuscus* has only 3 bristles to the seed, and a style twice as long as the glumes. It remains to be examined whether we really have this in Britain. The same excellent observer first found only 2 stamina in *S. albus*. He has moreover in the same book, p. 48, anticipated my remarks on the fruit of *S. mariscus*, t. 950.



POA distans.

Reflexed Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle branched, lax ; its branches at length reflexed. Spikelets of five obtuse, polished, slightly five-ribbed florets.

SYN. *Poa distans.* *Linn. Mant.* 32. *Sm. Fl. Brit.* 97. *With.* 141. *t.* 25. *Hull.* 21. *Abbot.* 19.

P. retroflexa. *Curt. Lond. fasc.* 6. *t.* 10.

Aira aquatica β. *Huds.* 34.

THE first British writer who well knew this grass was unquestionably the author of the *Flora Anglica*, though he erred with Linnæus in making it a variety of the very different *Aira aquatica*. Mr. Curtis, by means of a good figure and description, has now cleared it from all obscurity. It is perennial, flowering in July and August, and may be found in most sandy waste places towards the coast (not absolutely on the beach) and even by the road up Hampstead hill.

The root is fibrous, not creeping as in *P. maritima*, the only English grass which can be confounded with this. Stems many, decumbent at the base, then spreading or erect, about a foot high, round, leafy, striated, smooth. The whole herbage is rather glaucous. Leaves smooth, acute, straight, with long sheaths crowned by a blunt notched stipula. Panicle erect, remarkable for the striking manner in which its branches soon become rigidly bent downward, which is in some degree the case occasionally with *P. maritima*; in that however the florets are larger, longer, and more acute than in the plant we are describing.

987
127



Torilis
Anthriscus.

CAUCALIS Anthriscus.

*Upright Hedge Parsley.**PENTANDRIA Digymia.*

GEN. CHAR. *Involucra* general and partial, undivided. *Corollæ* radiate. *Flowers* of the centre male. *Fruit* nearly oval, striated, rough with rigid bristles.

SPEC. CHAR. Umbels of many close rays. General involucre of many leaves. Leaflets pinnatifid. Branches nearly upright.

SYN. *Caucalis Anthriscus.* *Huds.* 114. *Sm. Fl. Brit.* 298. *With.* 288. *Hull.* 59. *Relh.* 111. *Sibth.* 93. *Abbot.* 59. *Curt. Lond. fasc.* 6. t. 22. *C. minor, flosculus rubentibus.* *Raii Syn.* 219. *Tordylium Anthriscus.* *Linn. Sp. Pl.* 346.

LINNÆUS undoubtedly errs in referring this plant to the genus *Tordylium*. Its bristly seeds, abortive flowers, whole structure and habit make it a *Caucalis*; see v. 3. t. 197—199. Few weeds are more general in hedges and the borders of fields. The flowers, which are either white or reddish, are most abundant in July, and the seeds plentiful in August and September. The root is annual and tapering. Stem erect, 2 or 3 feet high, rough with closely depressed bristles, dividing into several nearly upright branches. Leaves alternate, bipinnate, rough; the leaflets opposite, cut and serrated; the terminal one longest. Umbels terminal, erect, of numerous rays, but little spreading, and furnished with a short involucre of several sharp rough entire leaves; the partial involucre is similarly formed. Partial umbels flattish, dense. Flowers radiant (or irregular), though in no great degree. Fruit small, rough, with simple incurved bristles, its summit tinged with purple.

This *Caucalis* is neither noxious, nor remarkable for any properties of known utility.



Bunium flexuosum.

Feb. 1. 1800. Published by J. Sowerby, London.

BUNIAM flexuosum.

*Common Earth-nut.**PENTANDRIA Digynia.*

GEN. CHAR. *Involucra* general and partial. *Corolla* uniform. *Umbels* dense. *Fruit* ovate.

SPEC. CHAR. General involucre of scarcely three leaves. Stem at the base tapering, zigzag, and naked.

SYN. *Bunium flexuosum*. *With.* 291. *Sm. Fl. Brit.* 301. *Sym.* 70. *Hull.* 60. *Sibth.* 94. *Abbot.* 60.

B. Bulbocastanum. *Huds.* 122. *Relh.* 118. *Curt. Lond. fasc. 4. t. 24.*

Bulbocastanum. *Raii Syn.* 209.

A WELL-KNOWN inhabitant of gravelly pastures, whose white flowers are conspicuous throughout the month of June, and whose roundish fleshy roots are eagerly sought by boys; less perhaps for the sake of their sweetish pungent flavour, than for the amusement of tracing them to their deep situation by means of the slender tapering and tender basis of the stem. If this clue be lost, it is not easily recovered.

These roots are perennial. Stem about a foot high, smooth, branched and leafy upward. Leaves tripinnate, with narrow linear uniform segments, smooth, bright green; the radical ones on long taper zigzag stalks. Umbels terminal, erect, of many rays. General involucre of one to three small linear leaves, often altogether wanting; partial of several such leaves. Petals regular. Fruit ovate, smooth, tipped with purple.

Although Linnæus confounded this with the *Bulbocastanum majus* of old authors, the latter appears to be what he had before him when describing his *Bunium Bulbocastanum*, and is a very rare plant with us. Dillenius in Ray's *Synopsis*, 209, has mentioned both, and Dr. Stokes has well distinguished them in the 2nd edition of *Withering*.



Polygonum Hydropiper.

POLYGONUM Hydropiper.

*Biting Persicaria.**OCTANDRIA Trigynia.*

GEN. CHAR. *Cal.* coloured, in 5 segments, permanent. *Seed* solitary, superior, angular, invested with the calyx. *Stam.* and *Pist.* uncertain in number.

SPEC. CHAR. Flowers with six stamina, and style divided half-way down. Leaves lanceolate, waved, unspotted. Spikes slender, drooping. Stem erect.

SYN. . Polygonum Hydropiper. *Linn. Sp. Pl.* 517. *Sm. Fl. Brit.* 426. *Huds.* 170. *With.* 379. *Hull.* 85. *Retz.* 160. *Sibth.* 129. *Abbot.* 89. *Curt. Lond. fasc. 1. t.* 26.

Persicaria vulgaris acris, seu Hydropiper. *Rau* *Syn.* 144.

WE have lately (*t.* 955) described one plant distinguished by the name of *Hydropiper* on very slight grounds; the present had obtained the same denomination previously, on account of its pungent taste, caused by an essential oil which resides in the dots scattered over the herb, particularly the calyx, forming a distinguishing mark of the species. Mr. Curtis however notes that these glandular punctures are sometimes wanting, and therefore they cannot enter into the specific character. No plant is more common than this in ditches and watery places. It flowers in August and September, and may be known from all the other common species by its slender drooping lax spikes, its light-green leaves, always destitute of the black spot so general in *P. Persicaria*, *t.* 756. Its root is annual, in whorls from the lower joints of the stem. Calyx whitish, tipped with red, glandular as above mentioned. Stamina 6, rarely 8. Style cloven full half-way down, rarely three-cleft. Stigmas blunt.

Mr. Curtis first well distinguished from this the *P. minus*, whose leaves are flat (not waved), stem more or less procumbent, and style scarcely at all divided.

990.
711.



Rosa tomentosa



R. tomentosa L. f. *R. tomentosa* L. f.

ROSA tomentosa.

*Downy-leaved Dog-rose.**ICOSANDRIA Polygynia.*

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Pctals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, bristly as well as the flower-stalks. Prickles of the stem hooked. Leaflets ovate, downy on both sides.

SYN. *Rosa tomentosa.* *Sm. Fl. Brit.* 539.

R. villosa β. *Huds.* 219. *With.* 466. *Hull.* 111.

R. villosa. *Relh.* 194. *Sibth.* 159?

R. sylvestris fructu majore hispido. *Raii Syn.* 454.

R. sylvestris alba, cum aliquo rubore, folio hirsuto. *Bauh. Hist. v. 2.* 44.

THIS Rose, when detected at Norwich about 20 years ago, was considered by the London botanists as a new discovery; yet there can be little doubt of its being the plant of Ray which Hudson referred (as a variety) to *R. villosa*; still less doubt is there of its being a totally distinct species. It grows in many places near Norwich, most copiously in the sequestered Arminghall wood; also about London: in Shropshire and Wales it abounds. Mr. Relhan and Mr. Holme have sent it from Cambridge, along with the true *villosa*, but the former assures us this is the plant intended by that name in his *Flora*. Lastly, the much-lamented lady of Lord John Russell found it in Broomham-lane near Bedford.

In size, general habit, and form of the leaflets, it agrees with *R. can. ia*, but essentially differs in the leaves being downy all over, of a grayish green, and slightly fragrant, as in *R. villosa*. The petals are almost white in their lower part; in the upper they vary in every shade of rose-colour, and are a little odorous. The fruit is ovate, scarlet, bristly, quite unlike that of *R. villosa*. This rose blossoms in June and July; and the fruit, conspicuous among common hedges by its roughness, remains through the autumn. We do not find the calyx generally permanent.



ROSA rubiginosa.
Sweet Briar, or Eglantine.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, bristly as well as the flower-stalks. Prickles of the stem hooked. Leaflets elliptical, clothed beneath with rusty-coloured glands.

SYN. *Rosa rubiginosa.* *Linn. Mant.* 2. 564. *Sm. Fl. Brit.* 540. *With.* 466. *Hull.* 111. *Relh.* 193. *Sibth.* 158. *Abbot.* 110.

R. eglanteria. *Huds.* 218.

R. sylvestris odora. *Raii Syn.* 454.

GATHERED by Mr. Sowerby at Battersea. It grows in many parts of England truly wild, on a gravelly or sandy soil, flowering in June and July. It is familiar to every one in gardens, and makes beautiful and fragrant, though not very long-lived, hedges. Its size and habit agree with that in our last plate; but the leaflets are generally more elliptical, of a bright green, but slightly hairy above, clothed beneath with reddish viscid glands, and eminently distinguished by their most fragrant smell, often compared to that of apples, though much more universally agreeable. The flowers are of a more constant and deeper red than other wild roses, and also smell pleasantly. The fruit is ovate, bristly, (though often smooth when cultivated,) scarlet, farinaceous and insipid.

The generality of poets, "for poets they are called by themselves and their admirers," confound the woodbine and the eglantine, but they err with Milton. Shakspeare, though generally charged with this fault, is clear of it; at least the passage in question is most probably to be read thus—

"So doth the woodbine, the sweet honeysuckle,
"Gently entwist the maple."

See Johnson and Steevens's Shakspeare, vol. v. 121.



ROSA canina.
Common Dog-rose.

ICOSANDRIA Polygynia

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* numerous, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit ovate, smooth as well as the flower-stalks. Prickles of the stem hooked. Leaflets ovate, pointed, very smooth.

SYN. *Rosa canina*. *Linn. Sp. Pl.* 704. *Sm. Fl. Brit.* 540. *Huds.* 219. *With.* 467. *Hull.* 111. *Relh.* 194. *Sibth.* 158. *Abbot.* 111. *Curt. Lond. fasc.* 5. *t.* 34.

R. sylvestris inodora, seu *canina*. *Raii Syn.* 454.

TO be seen every where in hedges and thickets, flowering in June; nor have we any plant that conduces more to the ornament of the country, whether we consider its graceful branches and leaves, its elegant buds, its blossoms blushing with every tint of carnation, or its rich coral fruit. Nor must we forget the sweet and delicate scent of its flowers; which, though less powerful, is perhaps as grateful as that of any rose in the world. The flavour of the fruit, when ripened by frost, is also peculiarly agreeable. A conserve prepared from it is used in medicine as a vehicle for powders, or other drugs, of small bulk. Were it not for the unpleasant association of ideas which this occasions, few sweetmeats would be more welcome at table.

The smooth shining leaves of the Dog-rose distinguish it at once from our two other species with oval fruit, see the 2 last plates; the *spinosissima* and *arvensis* have globular fruit. The latter has its flowers more in cymes; petals white with a yellow tinge at their base; stems and fruit of a mahogany hue. In *R. canina* the flower-stalks are more commonly (though not always) solitary; they are peculiarly smooth and polished, not glandular.—As the fruit of *R. rubiginosa* is occasionally smooth, so that of *canina* is very rarely a little hispid, as observed by the Rev. Mr. Sutton.



CAREX axillaris.
Axillary Clustered Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale.
Cor. none. Female, *Catkin* imbricated. *Cal.*
of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed*
clothed with a swelling tunic.

SPEC. CHAR. Spikelets remote, sessile, androgynous ;
the lowermost compound. Bractæ very long.
Seed-tunic cloven at the point.

SYN. *Carex axillaris.* Gooden. *Tr. of Linn. Soc.* v. 2.
151. t. 19. f. 1. Sm. *Fl. Brit.* 970. With. 89.
Hull. 205.

MR. CURTIS is said to have first discovered this species of *Carex* near Putney. Mr. Woodward sent our specimen from Earsham, Norfolk, where it is found about wet ditch banks on a soil of strong clay, flowering in the middle of June.

This has probably been often neglected as a luxuriant variety of *C. remota*, t. 832. It differs from that species in being much larger and stouter, with broader leaves and bractæ. The spikelets are also more turgid, and the lowermost of them, sometimes two or three more, are compound, consisting of a principal spikelet with 2, 3, 4, or even 5 smaller ones clustered at the base. The lowest bractea only rises as high as the top of the stem; the rest are shorter. The seed-cases are much more distinctly and deeply cloven than those of *C. remota*.



CAREX strigosa.
Loose Pendulous Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Sheaths elongated, nearly equal to the flower-stalk. Spikes slender, loose, a little drooping. Fruit lanceolate, triangular, ribbed.

SYN. *Carex strigosa.* *Huds.* 411. *Gooden. Tr. of Linn. Soc.* v. 2. 169. t. 20. f. 4. *Sm. Fl. Brit.* 982. *With.* 96. *Hull.* 206. *Sibth.* 30. *Abbot.* 205.

Gramen cyperoides polystachyon majusculum latifolium, spicis multis longis strigosis. *Raii Syn.* 419.

FEW botanists have seen this *Carex* in its native places of growth, yet it is to be found in woods or groves in several parts of England, as Essex, Oxfordshire, and Bedfordshire; also in Hedenham wood, Norfolk, where Mr. Stone first discovered it many years since. We are obliged for our specimen to the Rev. Mr. Hemsted of Bedford. It flowers in April or May.

Root fibrous, perennial as in every known *Carex*. Stem erect, slender, 2 feet high, leafy, triangular, smooth. Leaves light-green, broadish, thin, rough on the edge and midrib. Bractææ like the leaves, shorter than the stem, each with a sheathing base, which is nearly as long as the flowerstalk it embraces, and is crowned by a tubular membrane analogous to the stipulæ. Female spikes 4, 5, or more, on capillary stalks, slender and soon drooping, loose, that is, composed of straggling or distant flowers. Male spike terminal, solitary, erect. Glumes ovato-lanceolate, green, edged with white. Stamina and stigmas 3. Fruit lanceolate, triangular, acute, but not beaked, a little recurved, strongly ribbed, smooth, green. Seed elliptical, triangular.



CAREX *sylvatica*.
Pendulous Wood Carex.

MONOECIA *Triandria*.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale.
Cor. none. Female, *Catkin* imbricated. *Cal.*
 of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed*
 clothed with a swelling tunic.

SPEC. CHAR. Sheaths but half as long as the flower-
 stalk. Spikes slender, a little loose, drooping.
 Fruit ovate, triangular, beaked, without ribs.

SYN. *Carex sylvatica*. *Huds.* 411. *Gooden. Tr. of*
Linn. Soc. v. 2. 183. *Sm. Fl. Brit.* 983. *With.*
 102. *Hull.* 207. *Relh.* 356. *Sibth.* 30. *Ab-*
bot. 205. *Dicks. H. Sicc. fasc.* 9. 13.

Gramen cyperoides sylvarum, tenuius spicatum.
Raii Syn. 419.

COMMON throughout Britain in woods or thickets,
 rather preferring a clay soil, and situations that are wet in
 winter; flowering in May or June.

This agrees much in habit, stature and foliage with the
 last, with which therefore most botanists contrast it; but in
 fact the *C. sylvatica* is naturally allied to *C. vesicaria*, *lævi-*
gata, &c., and has occasionally 2 male spikes. We would
 not however lay any stress on that circumstance, but rather
 on the structure of its fruit, which has 3 prominent angles,
 though no intermediate ribs, and ends in a longish cloven
 beak; in short, it is totally different from that of *C. stri-*
gosa.—The spikes are rather lax, and, standing on long
 capillary stalks, are pendulous even from the beginning.
 The stamina and stigmas are three. The seed-cases being
 quite destitute of ribs serve clearly to distinguish it from *C.*
vesicaria and *lævigata* as well as from *strigosa*. Linnæus
 made it a variety of the former, and has celebrated its uti-
 lity to the Laplanders, who use it carded and dressed as a
 wadding to protect them from cold.



ORTHOTRICHUM crispum.

Curled Orthotrichum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Capsule* oblong. *Fringe* generally of a double row of teeth. *Veil* clothed with erect hairs.

SPEC. CHAR. Leaves crowded, linear ; recurved and waved by drying. Fruit-stalk much longer than the capsule, swelling upward.

SYN. *Orthotrichum crispum*. *Hedw. Crypt. v. 2. 96. t. 35.* *Swartz. Act. Holm. ann. 1795. 247.*

Bryum crispum. *With. 827. Abbot. 236.*

B. striatum δ. *Linn. Sp. Pl. 1580.*

Polytrichum striatum δ. *Huds. 471.*

P. capillaceum. *Hull. 249.*

P. capillaceum crispum, calyptris acutis pilosissimis. *Dill. Musc. 433. t. 55. f. 11.*

P. capsulis oblongo-rotundis, calyptris pilosissimis. *Raii Syn. 91.*

Weissia crispa. *Sibth. 287.*

THE genus of *Orthotrichum*, characterized by the upright hairs which clothe its veil, is as natural and distinct as any one in the whole vegetable system ; and it is high time to put an end to the jumble of names, both generic and specific, with which this and other species have been encumbered.

O. crispum grows on the trunks of trees in several parts of Britain, though less frequently than the *striatum*. The fruit ripens in March and April. The stems form tufts, being branched at the bottom, and thickly clothed with linear, acute, entire, carinated leaves, straight when moist, but becoming waved and recurved when dry, which last is its specific mark ; and to this may be added the length of the fruit-stalk, which is much greater than in other species. Capsule with 8 strong furrows ; its orifice fringed with 8 pairs of recurved external teeth, and with 8 internal capillary incurved simple teeth. We can find no more, though Hedwig describes 16. The hairs of the veil are finely jointed.



BARTRAMIA Halleriana.

Lateral Bartramia.

CRYPTOGAMIA Musci.

GEN. CHAR. Capsule spherical, at length furrowed. Outer fringe of 16 tapering teeth ; inner a plaited membrane.

SPEC. CHAR. Fruit-stalks lateral, curved, shorter than the leaves. Leaves linear-awlshaped, without lateral nerves.

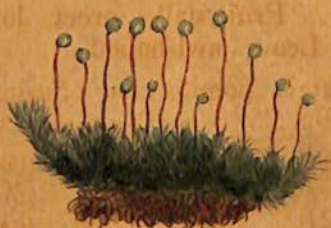
SYN. Bartramia Halleriana. Hedw. Crypt. v. 2. 111. t. 40. Swartz. Act. Holm. ann. 1795. 268.

Bryum laterale. Huds. 483. Lightf. 727. With. 823. Hull. 254. Dicks. H. Sicc. fasc. 5. 20.

FOUND in the moist stony parts of mountainous woods in Scotland, Wales, and the north of England, but not commonly. Mr. Griffith sent our specimens from Wales in July 1800, at which season the seeds are for the most part ripe.

This moss forms broad patches of dense, upright, branched stems, near two inches high, and entirely clothed from top to bottom with leaves, which are a little more inclined to one side than the other. The lower part of the stems is also clothed with dense brown woolly radicles. The leaves suddenly taper from a broad base into a linear-awlshaped slender figure, serrated at the edge, and sharply keeled, having one strong nerve only. The flowers, whether terminal or not occasionally, appear to be truly lateral and axillary ; for several capsules are found one above another on an unbranched stem, each on a curved stalk, proceeding from the *axilla* of a leaf, and shorter than the leaf itself. The unripe capsule is globose. Veil deciduous. Lid short and broad. The capsule soon becomes lengthened, or rather laterally contracted, into a cylindrical form, marked with 16 strong furrows, and its margin is fringed with the same number of awlshaped flattish teeth, surrounding an internal plaited membranous covering, a little torn at its opening.

We would not dissent from the above great authorities as to the specific name, but the original one, *lateralis*, seems much the most expressive.



BARTRAMIA pomiformis.

Apple Bartramia.

CRYPTOGAMIA Musci.

GEN. CHAR. Capsule spherical, at length furrowed. Outer fringe of 16 tapering teeth; inner a plaited membrane.

SPEC. CHAR. Fruit-stalks erect, longer than the stems. Leaves awlshaped.

SYN. *Bartramia pomiformis*. Swartz. Act. Holm. ann. 1795. 268.

Bryum pomiforme. Linn. Sp. Pl. 1580. Huds. 474. With. 822. Hull. 259. Relh. Suppl. 3. 10. Abbot. 240. Dicks. H. Sicc. fasc. 10. 20.

B. capillaceum, capsulis sphæricis. Dill. Musc. 339. t. 44. f. 1.

B. trichoides virescens, erectis majusculis capitulis maliformibus. Raii Syn. 97.

THIS elegant moss is found here and there on sandy shady banks, or in black boggy mould in the clefts of rocks, bearing its green round fruit about April, which in the following month discharges the seeds, becoming brown, more oblong, and marked with 16 parallel furrows as in the preceding. There can be no doubt of these plants forming, as Hedwig observes, one natural genus; and although we are generally less disposed than that great author to found our generic characters of mosses on minutiae of structure in the inner teeth or membrane which closes the fruit, we cannot but follow him in this instance, at the same time rather depending on the spherical form, and regular furrows, of the capsule as an obvious and certain distinction. We suspect one or two more species of *Bartramia* may be natives of Britain.

The stems of *B. pomiformis* are branched and form tufts, but are much shorter than in *B. Halleriana*; the leaves are more spreading, lanceolate, serrated chiefly towards the point, and not so suddenly contracted just above the base. Fruit-stalks red, at first terminal, but soon becoming axillary, rising erect, high above the stems.

CONFERVA Mertensii.

Mertensian Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, solitary, closed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Frond much branched : branches opposite, pinnated ; joints short. Capsules minute, acorn-shaped, on short stalks.

THE history of this new *Conferva* cannot be better expressed than in the words of Mr. Turner, to whom we are obliged for our specimens.

“It was first found on the beach at Yarmouth by Mr. Wigg in the summer of 1799, and has since been occasionally met with, though always in extremely small quantities, by Mr. Mason and myself. I have named it after my excellent correspondent Professor Mertens of Bremen, as well to bear a testimony to his unwearied zeal and extensive knowledge of this genus, which he is now about to illustrate, as in token of my private respect. It cannot be confounded with any hitherto described species from the peculiarity of its habit, which bringing it very near to *Fucus Wiggii* makes it one of the many links that unite the two genera ; and hence it belongs to Dr. Roth’s intermediate genus *Ceramium*, which for the present we on many accounts decline adopting. *C. Mertensii* is usually about 3 inches high. Its small solid root sends forth many cylindrical pale-yellow stems, pinnated from their very origin, with short, opposite, distichous, horizontal shoots, in general simple, sometimes extending into new branches. Joints short, cylindrical ; *septa* darker, and thence conspicuous. Whole plant pellucid, except the capsules, which are opaque, acorn-shaped, growing out of the smaller branches, on short stalks, opposite or alternate, visible only with a good glass. When dried this species resembles most Hudson’s *C. gelatinosa* β, *C. mutabilis* of Roth’s *Catalecta*.”



CARDAMINE amara.

*'Bitter Ladies'-Smock.**TETRADYNAMIA Siliquosa.*

GEN. CHAR. *Pod* bursting elastically, the valves turning back, equal to the partition. *Stigma* entire. *Cal.* a little spreading. One gland on each side, between the shorter stamina and the calyx.

SPEC. CHAR. Leaves pinnate ; leaflets of the radical ones roundish ; those of the stem toothed or angular. Stem taking root at the base.

SYN. *Cardamine amara.* Linn. *Sp. Pl.* 915. *Sm. Fl. Brit.* 699. *Huds.* 294. *With.* 580. *Hull.* 149. *Sibth.* 206. *Curt. Lond. fasc. 3. t. 39. Lightf.* 350.

* *C. flore majore elatior.* *Raii Syn.* 299.

EITHER this species of *Cardamine* is really very scarce in Britain, or it has been sometimes overlooked as a white variety of the common *C. pratensis*. From that it may nevertheless be always distinguished, on the most casual view, by the violet hue of its antheræ. When accurately compared many decisive points of difference will be found.

C. amara grows in very watery places, generally by the sides of rivers or brooks, flowering in April and May. Its root is perennial, toothed. Stems at the base procumbent and taking root in the mud, then upright, a foot high, somewhat zigzag, leafy. Leaves nearly smooth ; the leaflets of the lower ones roundish ; those on the stem oblong or elliptical, variously waved and toothed, totally unlike those of *C. pratensis*. Flowers large, white or cream-coloured. Antheræ violet, of which colour the base of the petals often partakes. Style a little elongated and oblique, as Mr. Curtis well remarks. Pods erect, rather thicker than in the *pratensis*. The leaves might be gathered by mistake for Water-cresses. They are pungent, but would soon be discovered by their nauseous bitterish taste. Our specimen was sent from Ripon by Mr. W. Brunton.



ARTEMISIA *maritima*.*Sea Wormwood.*SYNGENESIA *Polygamia-superflua*.

GEN. CHAR. *Recept.* naked or downy. *Seed-down* none. *Cal.* imbricated, the scales roundish and closed. *Florets* of the radius awlshaped, undivided.

SPEC. CHAR. Leaves in many deep divisions, downy. Clusters drooping. Receptacle naked. Female florets about three.

SYN. *Artemisia maritima*. *Linn. Sp. Pl.* 1186. *Sm. Fl. Brit.* 864. *Huds.* 358. *With.* 709. *Hull.* 182. *Relh. Suppl.* 2. 14. *Woodv. Med. Bot.* t. 122.

Absinthium marinum album. *Raii Syn.* 188. n. 2. also n. 3, 4, 5 and 6.

NOT uncommon in muddy places about the sea coast, flowering in August and September.

Root woody, perennial. Whole plant clothed with a grey cottony down. Stems erect or prostrate, paniced, leafy, a foot or more in height. Lower leaves pinnate; leaflets three-cleft; upper ones variously, but for the most part deeply, divided; segments all entire: uppermost leaves often simple. Clusters of flowers generally more or less drooping. Flowers ovate. Calyx woolly; its scales brownish, with a membranous edge. Receptacle quite naked. Florets of the radius never more than 2 or 3, and often wanting.

This plant has the qualities of the Common Wormwood, but is less bitter, and more agreeable in its flavour. Some occasional variations in this respect, as well as in the breadth and hoariness of the leaves, density of the clusters, and size of the flowers, gave occasion to our botanists in the time of Dillenius to make several species, which he judiciously considers as varieties. We have actually traced most of them to their origin, and strongly suspect the *A. cœrulescens* of Hudson to have been no other than the *maritima*, with broader and more simple upper leaves than usual.



GNAPHALIUM luteo-album.

*Jersey Cudweed.*SYNGENESIA *Polygamia-superflua.*

GEN. CHAR. *Recept.* naked. *Down* rough or feathery.
Cal. imbricated; with coloured membranous
 scales. *Florets* of the radius awlshaped. Some
florets of the disk occasionally abortive.

SPEC. CHAR. Herbaceous. Leaves half embracing
 the stem, swordshaped, waved, woolly on both
 sides: the lower ones blunt. Flowers clustered.

SYN. *Gnaphalium luteo-album.* *Linn. Sp. Pl.* 1196.
Sm. Fl. Brit. 867. *Huds.* 359. *With.* 712.
Hull. 183. *Dicks. H. Sicc. fasc.* 5. 13.

Elichrysum sylvestre latifolium, capitulis conglo-
batis. *Raii Syn.* 182.

RAY and his friends made no scruple of allowing a place in the British Flora to the plants of Jersey and Guernsey, though those of Gibraltar might almost as well be admitted. The *Gnaphalium* now before us is said to be very frequent in dry barren places in the first-mentioned island, flowering in July and August. Our specimen however is of English growth, and, as Mr. Relhan thinks, indubitably wild, having been found by him in the road from Hanxtown to Little Shelford, Cambridgeshire, far from any house (nor is it indeed a garden plant), also in a gravel-pit a quarter of a mile from the road. We give it on that gentleman's authority; and the only question can be, whether its very volatile seeds could have been wafted thither from the botanic garden at Cambridge.

Root annual, small. Whole herb clothed with white lax cottony down. Stems spreading at the base, about a foot high, or more. Leaves alternate, somewhat revolute and waved. Flowers many in a dense terminal woolly cluster. Calyx pale-yellow, shining. Hermaphrodite florets few, yellow, central, 5-cleft; female ones numerous, redder, awlshaped, with a red stigma. Seeds all fertile, small, rough.

1003

120.



Poa alpina L. f. *Poa alpina* L. f.

POA alpina.
Alpine Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle loose. Spikelets heartshaped, of about four flowers. Glumes ovate, rather sickles shaped, not connected by a web. Lower stipulæ very short.

SYN. *Poa alpina.* *Linn. Sp. Pl.* 99. *Sm. Fl. Brit.* 100. *Lightf.* 96.

OUR specimens of this truly alpine grass were gathered on mountains to the north of Forfar, by Mr. G. Donn and Mr. J. Mackay. It is perennial, flowering in July or August.

The fibres of the root are long, slender, and smooth. Stems from 4 to 12 inches high, a little decumbent and rooting at their base; leafy and sometimes branched below; naked, smooth and shining, often purplish, above. Radical leaves many, spreading, flat, ribbed; a little glaucous beneath; rough at the margin; bluntish yet tipped with a short point: stem-leaves about two, short, with very long smooth sheaths. Lower stipulæ short and blunt; upper lanceolate, often torn or divided. Panicle spreading, short, somewhat ovate; its branches angular, generally nearly smooth. Spikelets ovate, so broad as to be almost cordate, shining, elegantly variegated with green, white, and purplish brown. Calyx-valves nearly equal, ovate, acute, rather falcate, rough at the keel. Florets about four, ovate, acute, membranous at the edge, the lower part of which is silky, and the keel still more so; several longish hairs also clothe the base of each floret, but the long complicated web, which connects the florets of most *Poæ*, is wanting. Inner valve notched, finely fringed.—The flowers in wet seasons are often changed into buds, without any regular fructification.

We are now satisfied that the *P. pratensis* β of Hudson is not this, but a new British species, delineated in our next plate.

1004
130.



Puccinellia pratensis y.

POA subcærulea.
Blueish Meadow-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the base. *Cor.* of 2 ovate, pointed, beardless valves.

SPEC. CHAR. Panicle loose. Spikelets heartshaped, of about three flowers. Glumes ovate, acute, connected by a web. Stipulæ all short and blunt.

SYN. *Poa pratensis* β , *alpina*. *Huds* 39.

P. glauca. *With.* 148.

GATHERED in Anglesea by the Rev. H. Davies, flowering in June. That this is the *P. alpina* of Hudson, as well as the *glauca* of Withering, we think unquestionable. The original *glauca* of *Fl. Dan.* is notwithstanding widely different, and we have therefore given ours a new name, expressive of its blueish appearance. Hudson found this grass on the mountains of Westmoreland and Cumberland, and his opinion in reducing it to a variety of *P. pratensis* is less strikingly erroneous than if his plant had been (as is commonly supposed) the Linnæan *alpina*, which no good botanist could confound with *pratensis*.

P. subcærulea has a creeping perennial root, with much-branched, zigzag, downy fibres, agreeing with those of *pratensis*. Whole plant glaucous, with tints of purple. Stem 6 to 10 inches high. Leaves short, straight. All the stipulæ short and blunt. Panicle shaped like that of *alpina*, variegated with purple and glaucous green. Calyx almost awned. Florets generally three, connected by a copious soft white web, whose fibres may be seen between them even in their natural situation, but become most conspicuous when the florets are pulled asunder. This web does not exist in *P. alpina* or *cæsia*, *Fl. Brit.*, the only 2 species likely otherwise to be confounded with this. It is found in *P. pratensis*, but in a much less quantity; nor can that species, if its angular glumes be duly considered, be by any means confounded with this.



Festuca calamaria

F E S T U C A calamaria.

Reed-like Fescue-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, somewhat cylindrical, two-ranked, with sharp pointed glumes.

SPEC. CHAR. Panicle pointing one way, erect, much branched. Florets oblong, angular, beardless. Leaves sword-shaped, striated.

SYN. *Festuca calamaria*. *Sm. Fl. Brit.* 121.

Poa trinervata. *Schrad. Spicil.* 3. *Willden Sp. Pl.* v. 1. 389.

A NATIVE of moist rather alpine woods. Our specimens were communicated by Mr. G. Donn of Forfar, who informs us that he has known this grass for 12 years past, having found it in Dumbartonshire and Breadalbane, also near Fort Augustus. We first received it from Mr. Mackay, see *Fl. Brit.* It is not, however, peculiar to Scotland. The Rev. Mr. Butt has found it in a wood near Newton Barry, Ireland; and Mr. Moseley of Glashampton favoured us lately with living plants from the ledges of a lofty red sandstone rock in Shrawley wood, near his residence. Of so new and rare a plant we would not omit to mention all its known stations.

It flowers in July, and is perennial. Root fibrous, forming large tufts. Stems erect, a yard high or more, reed-like, round, smooth, leafy, with purplish joints. Leaves upright, broad, flat, long-pointed, striated, roughest at the edge, with sheaths about their own length, roughish but not hairy. *Scipula* short, notched. Panicle much-branched, very various in density according to its meeting with more or less shelter. Spikelets small, often tinged with purple or brown, roughish under a microscope. Calyx narrow and pointed. Florets 3, 4, or 5, linear-oblong, a little distant; their outer valve largest and keeled; their inner with 2 ribs often folded together so as to look like a simple keel, which gives them a peculiar appearance, and has caused some inaccuracy in the description in *Fl. Brit.* which it is our duty to point out.



BROMUS diandrus.

*Upright annual Brome-grass.**TRIANDRIA Digunia.*

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner husk* . fringed.

SPEC. CHAR. *Panicle* upright, spreading, scarcely subdivided. *Florets* lanceolate, ribbed, furrowed, with only two stamina.

SYN. *Bromus diandrus.* *Curt. Lond. fasc. 6. t. 5. Sm. Fl. Brit. 135. Tr. of L. Soc. v. 4. 296.*

B. madritensis. *Linn. Sp. Pl. 114. With. 161.*

B. muralis. *Huds. 50. Sibth. 48.*

Festuca avenacea sterilis, paniculis confertis erectis . oribus, aristis brevioribus. *Raii Syn. ed. 2. 261.*

OUR specimens of this *Bromus* were gathered at St. Vincent's rocks, Bristol, by the Rev. Mr. Hemsted. It grows mostly on sandy barren ground, walls and waste places, but not commonly. Mr. Curtis, who is entitled to great praise for first observing the flowers to be diandrous, found it at Battersea. The late worthy Dr. Withering made the same remark in Portugal, and we are thus enabled clearly to distinguish the present species from the common *B. sterilis*. Indeed it differs from that also in being lower, less downy, with an erect more compact panicle, which though somewhat spreading, is never lax or pendulous. The hue of its spikelets is also more frequently purplish. The nerves of the glumes are in general less prominent, and the two principal ones most conspicuous on each side stand in this species peculiarly close together.—The root is small and annual; the flowers are perfected in June. Dr. Withering was persuaded that this grass, sown in the autumn, might afford a good crop of early fodder in the spring, and be worth the husbandman's attention.

1007

2065.



Lecidea fusco-atra?

April 1 1803. Published by J. Sowerby, London.

LICHEN fusco-luteus.

Brownish-yellow Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust thin, continued, even, very white and smooth. Shields elevated, flat, dull-yellow, mealy, with a border of the same colour.

SYN. Lichen fusco-luteus. *Dicks. Crypt. fasc. 2. 18. t. 6. f. 2. H. Sicc. fasc. 4. 25. With. v. 4. 24. Hull. 291. Achar. Prod. 72.*

WE first became acquainted with this Lichen in the year 1782, by means of specimens from the Rev. Mr. Stuart, who gathered them on the Highland mountains of Breadalbane. Mr. Dickson has also found it on Ben Lawers and other mountains. Foreign botanists seem quite unacquainted with it.

The crust spreads widely over decayed mosses, sprigs of Heath, and other small plants, closely enveloping them so as to assume a branched or shrubby appearance (see Mr. Dickson's figure), which happens in like manner to *L. upsaliensis* and a few others. This crust when separately examined is found to be very thin, even and delicate, almost membranous, very white and somewhat polished. The shields grow either clustered or scattered. When young they are of the size of a moderate pin's head, roundish, with a thick inflexed border, all over of a dull yellow, being clothed with ochrey powder which is easily rubbed off. When full grown they are about 2 lines in diameter, elevated on a short thick stalk, their disk flat, their margin waved and narrower, though always visible enough, their colour still more dull and brownish; indeed the disk when deprived of its powdery covering appears quite brown or snuff-coloured.

1008 •

2203.



Collema subtile?

April 1, 1902. Published by J. E. Sowerby, London.

LICHEN subtilis.

Fine-spun Gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Gelatinous, dull green, very minute.

Leaves somewhat imbricated, much branched, linear, bluntish. Shields central, clustered, with a flat brownish disk, and narrow even border.

SYN. Lichen subtilis. *Schrad. Spicil.* 95. *Bernhardi* in *Schrad. Journ.* v. 1. 5. t. 2. f. 6. *Achar. Prod.* 136. *Dicks. Crypt. fasc.* 4. 25.

MR. EDWARD FORSTER discovered this Lichen near Hale End, Walthamstow, in 1791. It has since been found in Scotland and Ireland by Mr. Brown.

This is one of the most minute plants hitherto detected, and, as its first describer the accurate Dr. Schrader observes, would scarcely be visible to the naked eye, did it not grow in patches, which are from half an inch to an inch and half broad, fixed to the naked earth on a clay soil. Our specimens were sent from Coltishall, Norfolk, by Mr. Turner.

The whole plant is of a dull green, gelatinous and pellucid when moist, black when dry. The fronds or leaves spread from a centre, and are a little imbricated or entangled, variously and repeatedly branched into narrow, waving, entire, bluntish, fleshy segments, which under a high magnifier appear granulated. The shields are central, clustered (in very small plants only solitary,) sessile, top-shaped, having a flat or rather elevated brownish granulated disk, and a narrow entire green border.

On a careful comparison of this with our *L. cretaceus*, v. 11. t. 738, under a good microscope, we find the fronds indeed very similar in some instances, but the shields of the latter are redder, their margin pale brown and thicker than in *L. subtilis*.

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